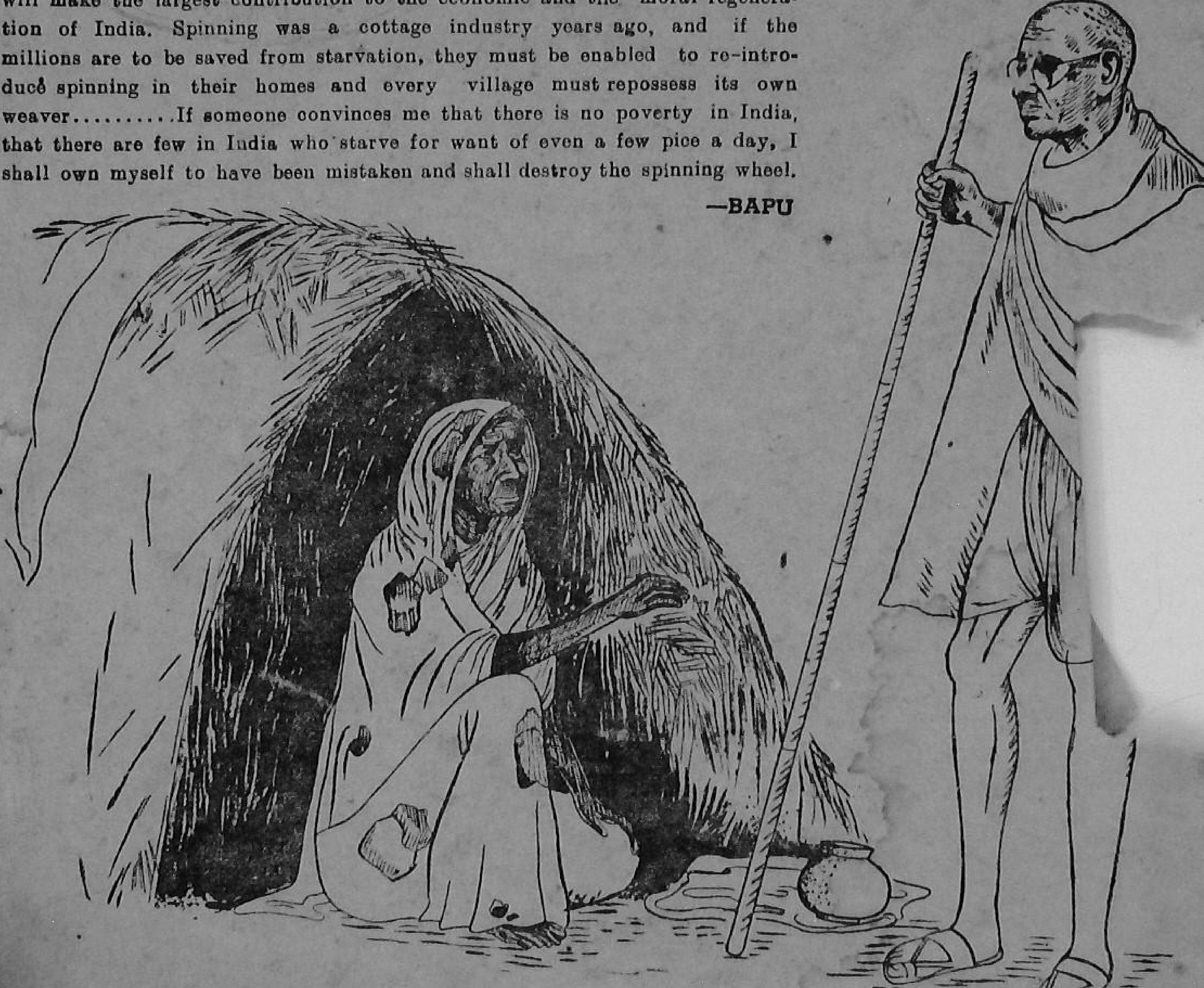
KHADI-GRAMODYOG

Vol. 3 October, 1956 N

SECOND ANNUAL NUMBER

I feel convinced that the revival of hand-spinning and hand-weaving will make the largest contribution to the economic and the moral regeneration of India. Spinning was a cottage industry years ago, and if the millions are to be saved from starvation, they must be enabled to re-introducé spinning in their homes and every village must repossess its own weaver..........If someone convinces me that there is no poverty in India, that there are few in India who starve for want of even a few pice a day, I shall own myself to have been mistaken and shall destroy the spinning wheel.

—BAPU



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(MINISTRY OF PRODUCTION)
MISTRY BHAVAN, DINSHA WACHA ROAD - BOMBAY—1.

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FUNCTIONS OF THE BOARD

"The Board will be responsible for preparing and organising programmes for the production and development of Khadi and Village Industries, including training of personnel, manufacture and supply of equipment, supply of raw materials, marketing and research and study of the economic problems of different village industries. The Board will also function as a clearing house of information and experience relating to these industries".

(From the Resolution of the Government of India).

OFFICE OF THE PRINCIPAL ... AGRICULTURAL TRAINING ... 23 NOV 1956 ... ADUTHURAI

GREETINGS

FROM THE PRESIDENT

"I have been watching with considerable interest the progress made by the All India Khadi and Village Industries Board in marketing the products of home and small-scale industries. The Board's journal, KHADI-GRAMODYOG, has played an important part in popularising those products. Though it is only two years old, this journal has already come to be recognised as a useful forum for the exchange of views and dissemination of information regarding Khadi and Village Industries. I am sure, as this work progresses and village industries are recognised as an essential part of our industrial and economic set-up, the All India Khadi and Village Industries Board will find it profitable to take up publication of this journal in as many Indian languages as possible. On the occassion of the publication of its Second Annual Number, I send it my best wishes and wish to it success."

Rajendraprasad

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KHADI–GRAMODYOG

VOL. 3 OCTOBER 1956 NO. 1

MAN AND MORALS

(*By* : MAHATMA GANDHI)

" He that oppresseth the poor to increase his riches shall surely come to want. Rob not the poor because he is poor; oppress neither the afflicted in the place of business. For God shall spoil the soul of those that spoiled them,"

True economics is the economics of justice. People will be happy insofar as they learn to do justice and be righteous. All else is not only vain, but leads straight to destruction. To teach the people to get rich by hook or by crook is to do them an immense disservice.

The ideas upon which political economy is based are misleading. Translated into action they can only make the individual and the nation unhappy. They make the poor poorer and the rich richer and none are any the happier for it.

Economists do not take the conduct of men into account, but hold that the accumulation of wealth is the sign of prosperity, and that the hapiness of nations depends upon their wealth alone. The more factories, the merrier. Thus men leave village farms with their spring winds and, coming to cities, live diminished lives in the midst of noise, of darkness, and of deadly exhalation. This leads to deterioration of the national physique, and to increasing avarice and immorality.

If some one talks of steps to be taken to eradicate vice, so-called wise men will say that it is of no use at all that the poor should receive education and that it is best to let things alone. They, however, forget that the rich are responsible for the immorality of the poor, who work like slaves in order to supply them with their luxuries, and have not a moment which they can call their own for self–betterment. Envying the rich, the poor also try to be rich; and, when they fail in this effort, they are angry. They then lose their senses and try to make money by force or fraud. Thus both wealth and labour are barren of all fruit or else are utilized for chicanery.

Labour in the real sense of the term is that which produces useful articles. Useful articles are those which support human life, such as food, clothes, or houses and enable men to perfect the functions of their own lives to the utmost and also to exercise a helpful influence over the lives of others. The establishment of big factories with a view to getting rich may lead a person into sin. Many people amass riches, but few make a good use of it. Accumulated wealth which leads to the destruction of a nation, is of no earthly use. The capitalists of modern times are responsible for widespread and unjust wars which originate from the covetousness of mankind.

Some people say that it is not possible to impart knowledge so as to ameliorate the condition of the masses. Let us, therefore, live as seems fit and amass riches. But this is an immoral attitude. For the good man who observes ethical rules and does not give way to greed has a disciplined mind, does not stray from the right path, and influences others by his acts. If the individuals who constitute a nation are immoral, so is the nation, too. If we behave as we choose and, at the same time, take our neighbours to task for their wrong doing, the results can only be disappointing.

We thus see that money is only an instrument which makes for misery as well as happiness. In the hands of a good man it helps in the cultivation of land and the harvesting of crops. Cultivators work in innocent contentment and the nation is happy. But in the hands of a bad man, money helps to produce, say, gun-powder which works havoc among its manufacturers as well as among its victims.

There is no wealth but life.

That country is the richest which nourishes the greatest number of noble and happy human beings; that man is richest who, having perfected the functions of his own life to the utmost, has also the widest helpful influence, both personal and by means of his possessions, over the lives of others.

This is not a time for self-indulgence, but for each of us to labour according to our capacity. If one man lives in idleness, another has to put in a double amount of work. This is at the root of the distress of the poor. The rich oppress the poor by misuse of riches.

OUTLOOK AND APPROACH

The activities of the All India Khadi and Village Industries Board are increasing and their responsibility has become ever greater. In our Second Five-Year Plan, they have a tremendous task before them. Even organisation of the Ambar Charkha on a large and efficient scale is a great undertaking and on its results depends much.

Sometimes the old argument of cottage and small industries versus big industries is still carried on. But the whole

context of this argument has changed. It is generally recognised that it is inevitable for India, both for progress and even to maintain her independence, to develop big industries. It is equally recognised that there is a very large scope for the development of cottage, village and small scale industries. Indeed that this is essential to meet the unemployment problem as well as to have a large decentralised base for industry. There really is no conflict between the two. What is required is a proper appreciation of the functions of both and adjustment.

We are on the threshold of the atomic age and even India has recently produced atomic energy. This energy is undoubtedly going to be a vast source of power within a few years. That power will change the objective conditions in which we live and will lead to much rethinking and how best to utilise it for human advantage. It may well be that the power will be peculiarly suited for large scale advance in regard to village and small industries. I cannot prophesy what the future will bring except to say that we live in a highly dynamic and changing age and are thinking as to how to keep pace with these changes.

In the present and the foreseeable future, cottage and village industries have an essential place in India's economy and have to be encouraged in every way. In doing so it must always be remembered that the latest techniques should be employed in so far as they are practicable.

I wish all success to the efforts of the All India Khadi and Village Industries Board.

—Jawaharlal Nehru

MESSAGE AND THE MISSION

There is no part of the year when the people of India do not remember with gratitude what Mahatma Gandhiji meant to the rebirth of the Indian Nation. Yet, even during his life time, the first half of October was a period of special observance, as his birthday happened to fall on 2nd October. Years ago, when he was apprised of the nation's desire to attach special significance to his birthday, Gandhiji asked us to forget the human personality on the occasion and to concentrate on his mission in life. That mission was to raise the material, moral and spritual stature of the people by means which were truthful and non-violent.

That mission of his, Gandhiji wished to fulfil through the constructive programe which be placed before the country. In that programme, he accorded a prominent place to the achievement of economic equality. For the attainment of that equality, in the social conditions of our country, he attached the highest im-

portance to Khadi since, to his mind, it connoted "the beginning of economic freedom and equality of all in the country". If India is to win complete independence, he said, in terms of the toiling millions and through unadulterated non-violence, the spinning wheel and Khadi have to be as natural to the educated few as to the partially employed and semi-starved millions.

Hence, on this occasion when we pay homage to Gandhi, we must remind ourselves of this message which he considered of such supreme value that he adjured us all to observe his birthday as Charkha Jayanti. The need to follow the path that he chalked out for us is as great to-day as it was when Gandhiji was in our midst. Despite our progress in many fields since independence, un-employment stalks the land, making it more and more difficult to rid the country of the poverty of the bulk of its people.

The nation's planners have come to the conclusion that the best way of eradicating unemployment is by the development of village and small-scale industries. For that development, the nation as a whole must be prepared to pay the price and, what is equally important, young men and women must come forward in large numbers, in a spirit of service, to assist in this work of development especially in the countryside. That is the message of the Gandhi Jayanti celebration in the era which has now dawned on us.

Damning A Programme

What an uphill task confronts those interesting themselves in the development of Khadi and Village Industries is evident from the way in which certain - not uninfluential — sections of public opinion have reacted to the decision of the Central Government to aceept the recommendations of the Ambar Charkha Inquiry (Khera) Committee and to assign to cloth produced out of Ambar Charkha yarn a place in the common production programme for cloth. During the last session of parliament there were some interpellations on the subject of the Ambar Charkha in the light of the criticism contained in the report submitted to Government by a German Technician, Dr. G. Etter. Several outside critics, without taking the trouble of seeing the report, fastened on to some of the disparaging remarks contained in the report and sought to discredit the yarn production programme based on the Ambar Charkha. The Khera Committee had before it Dr. Etter's views when it deliberately came to the conclusion that a spinning set such as the Ambar Charkha had a distinct place in our economy and that a programme based on it was worthy of support.

Or, let us take another instance. It is just a month since the Central Government sanctioned funds for the limited first stage of the Ambar Charkha programme which provides for the getting into operation of 75,000 Ambar Charkhas by the end of the year. The

programme involves the manufacture of Charkhas, the training of instructors to teach spinning on the Ambar Charkha, the providing of instruction for men and women in spinning and only then the supply of charkhas to the men and women who have undergone training to turn out yarn. The output of yarn and cloth for the year, obviously, can be negligible in relation to the country's requirements for cloth. Ignoring such obvious facts there are publicists who, with scarcely a month since the commencement of the modest, almost experimental programme for the year, have pronounced their verdict that "the Ambar Charkha has failed to deliver the goods". Whether the rise in cloth prices that has occurred over the last year is due to shortage of supplies of cloth in relation to increasing demand, is a moot point. But even if that were the case, it is unctuous distortion of facts to justify a thesis to hold those sponsoring the Ambar Charkha programme as responsible for the present shortage. Besides, even according to the announced cloth policy at the end of the Second Five Year Plan, it is only 300 million yards, or roughly only one thirtieth of the total demand for cloth, that is expected to be supplied by the Ambar Charkha somewhere in 1961. That being the position, to damn the Ambar Charkha now seems hardly a creditable performance on the part of responsible publicists.

RANDOM REFLECTIONS

(*By: THE EDITOR*)

The age of miracles is not over. Even when the world is conditioned by values of crass materialism, there are streaks of light which point to the persistence of an under-current of higher human values. No other explanation is possible for the way events on the Suez have shaped. In other times, the Suez incident would have plunged the world into the quagmire of international clash of arms. "Gunboat diplomacy" would have striven to establish once again that "might is right"- Humanity, at last, has rejected that discredited concept which is born of demented materialism. Two world wars have, in one generation, exposed the madness behind the concept. There is a new spirit of resistance to that method of dealing with international disputes. The world which seemed to be within an inch of war, has been rescued from it by this spirit. Brave words have failed to cut any parsnips. The might of the mighty ones has been reduced to futility. That is the miracle that this spirit of resistence has wrought. It has roused the soul of mankind and its yearning for peace and the spiritual co-existence of all the peoples of the world. The spirit of inquiry and the latent desire of all men of goodwill the world over, have demonstrated the primacy of reason over the puerility of the Atom Bomb-might or power. Suez, thus, becomes at once the symbol and the fact of the rising new temper of mankind and its return to human and spiritual values. That is the miracle of the Suez. In no small measure this miracle has been made possible by India's Jawaharlal Nehru whose struggle for a moral world has already become the despair of the merchants of death. But his struggle would be in vain had not his efforts in India reflected this same spirit. He has thrown his whole soul for the revival in India of her age-old spirit of self-reliance for which Bapu strove with rare courage, confidence and perseverence. This effort of our Prime Minister is already manifesting itself in myriad forms. The latest of these is the new wave of hope and enthusiasm that is surging in the remote countryside. The place given to the Ambar Charkha in the scheme of building for prosperity is already working miracles.

New Transformation

A new transformation is taking place in the thought of man and in the feelings of the people. News from several

parts of the country is illustrative of this transformation. For example, reports come from Rajasthan that women whose only companion used to be privation, penury and poverty, are experiencing a new emotional resurgence with the vision of plenty rising before them. Accoring to one report, a village woman—perhaps, one among the millions of half-starved and half-naked people—sees in the Ambar Charkha a new source of strength and self-confidence. To her hand-spinning was her means of livelihood, be the wages earned ever so little. She saw in the Ambar Charkha a new hope. She joined one of the numerous Parishramalayas during the days the Pillot Programme and had her trainining there. She has since acquired proficiency and—believe it or not—at the end of a month of spinning on the Ambar Charkha she found herself the proud possessor of a sum of Rs. 25. When she saw the money in her hands, she could not believe that she had earned it by spinning on the Ambar Charkha. She was dazed at the sight of so much money which she, perhaps, had never seen in a lump sum in her life. Tears trickled down from her eyes and it took quite some time before she came to herself and convinced herself that what she held in her hands was the gift of the Ambar Charkha, the reward of honest labour.

Fulfilment

Another report from Dharampur in Gujarat has it that Muslim women have found in the Ambar Charkha the source of digmity, of prosperity, of honest pride. According to this report, in one Muslim family three women had only one set of clothes between them fit to be worn while going out. They observe purdah and cannot seek work or alms outside the home. Only one among them could go out at a time. So great is their poverty. The old woman among them heard about the Ambar Charkha. She sent her daughter to be trained in the Parishramalaya. Now she is happy that through the Ambar Charkha they would earn their bread, wear their own clothes and live in dignity. To them blessed is the wheel which has come with its message of bread and clothing.

In another part of the country lower middle class families find in the Ambar Charkha a source of elevation and happiness. One woman of this class who took to the Ambar Charkha, has this to say : "We are poor. We have children. What my husband earns is hardly enough to meet our barest necessaries. I am unable to clothe my children well and to send them to school. I used to go in search of work. But I was never certain I will get it all throughout the year. My earnings were also not attractive. I took training on the Ambar Charkha. And now I work on it daily and am able to earn Rs. 1-12-0. The children also help. I can now be certain that I can work and earn my daily wage. I can now send my children to school and buy the books they need by the

wages of Ambar. I am so happy."

From far off Punjab comes yet another report. Old women who had taken training in Ambar spinning, are not only producing yarn of the quantity that is claimed for an Ambar set, but are producing much more. The story does not stop there. They have found it easy enough to keep Ambar sets in good repair without external technical aids. These old women spinning on the Ambar Charkha are also their own mechanics. True to the old adage that "necessity is the mother of invention", in the remote Punjab village where these women depend on the Ambar Charkha for their daily bread, have found their own little devices to keep the Charkha set going without giving trouble.

Vindication

Such is the impact of the Ambar Charkha on the life of our people in the countryside. What is significant is that the Ambar Charkha does not create insuperable problems for the spinner on it, nor does the spinner solely depend on the trained machanic to keep the Charkha sets in good trim. Another significant factor that emerges is that, once the Ambar Charkha enters the home of the spinner, it will be worked not for eight hours only, but more, and that other members of the family will also operate it. Particularly is this so when the return is handsome by rural standards.

As we read these reports, we are strengthened in our belief that the Ambar Charkha promises to be the harbinger of a new life and a new revolution–albeit industrial revolution–away from the metorpolitan cities and industrial capitals of the country. They strengthen our belief that the desire of the village artisan to acquire new and higher skill and to acquire higher technical knowledge will be stimulated and, thus, gradually the problems of productivity and productive efficiency will also solve themselves. They give substance to all that we have said in these columns during the past twelve months and vindicate every statement we have made on the Ambar Charkha as a potential instrument of progress–economic and social. Truly did Bapu tell us : "The Charkha in the hands of a poor widow brings a paltry pice to her. In the hands of a Jawaharlal it is an instrument of India's freedom. It is the office which gives the Charkha its dignity. It is the office assigned to the constructive programme which gives it an irresistible prestige and power."

Controversies

With this issue, "Khadi-Gramodyog" enters its third year of publication. The two years of its existence were marked by acute controversies and conflict of ideas. These, of course, pertained to the role of Khadi and Village Industries and the place assigned to them in our national development plans. In

this controversy, the question of cloth held the field over others. From vested interests came criticisms and broad sides against programmes for their development and much heat was generated in the country. Particularly during the past 12 months of its career, "Khadi-Gramodyog" had to face an array of forces ranged against the cause which it sought to promote. With the limitations inherent in a publication of the All India Khadi and Village Industries Board, this journal did not flinch from its tasks. Where frankness was called for, this came in abundant measure. Often the writings in it led to the raising eye-brows in high quarters. "Khadi-Gramodyog" picked up the dauntlet thrown by its critics and fought back on their own ground. Its weapon in the battle was its faith in the cause it espoused and its conviction that, no matter what economists and techologists said, Khadi and Village Industries alone could save the country from ruin. The more we think of those controversies and conflict of ideas, the more are we convinced that the cause that "Khadi-Gramodyog" seeks to serve is the cause of justice, of civilisation, of progress and of democratic socialism.

The Verdict

We are further sustained in this by the conclusions of the investigations that the United Nations and the International Labour Organisation carried out in underdeveloped countries. The conclusions reached by them are that compulsions of an undeveloped or under-developed economy make it imperative that programmes of economic development in those countries should conform to available resources and demoraphic factors. Unanimous has been their verdict that where financial resources are scarce and man-power resources are abundant, it will be futile policy to embark upon planned development in imitation of industrially advanced western countries where the man-power, problem does not exist. Moreover these conclusions should be an eye-opener to the Indian planners that the errors and the tragedies of western development could be avoided by a judicious use of available financial resources and the maximum utilisation of the abundant man power. Questions relating to techniques and productivity are of secondary importance and what could be achieved by mass production methods could equally be obtained by production by the masses. It is considerations such as these that prompt "Khadi-Gramodyog" to advocate the cause of development of Khadi and Village Industries as the only solvant proposition to build the progress and prosperity of the country.

Khadi On The Map

Today, after months of controversy and conflict of ideas, the Government of India has recognised the need for decentralised production of cotton textiles as an integral part of the national textile production programme. In this decentralised production, handspin-

ning and hand-weaving,—that is production of Khadi,—have been given a significant place. No doubt, the allocation of production to this sector is very meagre compared to the plan that the Board presented over a year ago. The Board has accepted the small allocation in the hope that its performance would justify its claim for increasing allocation of production to the handspinning and hand-weaving sector. The acceptance of the Ambar Charkha Programme, though in a limited form, and the introduction of the Ambar Charkha for the production of handaspun yarn to manufacture 300 millon yards of Khadi during the Second Plan period. have galvanised rural enthusiasm and hope. It is, however, sad to note that interested quarters are still cavilling at this programme, Already irresponsible statements are being wafted about that the alleged cloth shortage in the country is due to the allocation of production to the Ambar Charkha and its failure to deliver the goods. These quarters know that the Ambar Charkha Programme is a new programme and that Ambar Charkha have not yet gone into production. Their tactics seem to be to kill the chicken before the egg is hatched. Such statements, we need hardly emphasize, are not only irresponsible, but are dishonest.

Scarcity Talk

Another point that holds the field in the textile controversy today is the talk of scarcity of supplies and, therefore, the need to give higher allocation of production to the organized mill sector. We were told, time and again, that stocks in the mills have depleted, that stocks with trade are much less than the usual carryover and that there is an increasing demand for cloth from the public. All these factors, we are further told, had contributed to the alleged rise in the prices of cloth. *Availability* of cloth, we have been asked to believe, is the same as ***consumption*** of cloth and, as though to counteract price rocketing in textiles, a new series of excise duties were announced. There was tension in the textile atmosphere and more attacks on the Ambar Charkha and our programme. "Khadi-Gramodyog" took cognisance of this smear campaign and, through its columns, exposed their tendentious and unreal character. We have yet to hear a refutation of our facts and our figures. Fortunately for us, the motto that adorns our national emblem, namely, *Satyameva Jayate* can never be falsified and proof of this has come much sooner than those behind the scarcity campaign expected. Truth is now out. There is no offtake of cloth by the people. Even the usual post-monsoon and Diwali spurt has not developed. There is fear of accumulation of stocks and a crash in prices, and the return of the age-old problem and of the textile mills.

Truth Triumphs

Looking back on these controversies and the role that "Khadi-Gramodyog" has played in them, we may, with just pride, say that Truth has triumphed. If some of the illustrative report we have quoted above, are any indication of the possibilities of the Ambar Charkha, the day will not be far off when the countryside will be flooded with its own cloth manufactured out of Ambar Charkha yarn. The areas of self-sufficiency production will expand, albeit gradually. When this expansion takes place the market for outside cloth, including mill cloth, in those areas will contract. There is no need to repeat what Bapu has often said, that the core of true Swadeshi is Khadi and without Khadi there is no Swadeshi. Nor need we repeat what he used to say, that if promotion of Khadi production is retarded by the expansion of mill competition, we should even eschew mill cloth. These controversies will die out and in the years that are before us, a new sense of responsible appreciation will bring about a harmony in the execution of national development programmes.

Changed Times

While we strike this note of hope and optimism, it is sad to reflect on the attitude of a certain section of constructive workers in the country. Has the All India Khadi and Village Industries Board, by launching on commercial production of Khadi and by its emphasis on the employment and economic aspects of the programme, rejected the ethical aspects and values of the Khadi movement? This question is being asked. The question arises out of an unwillingness to accept that conditions have changed in the country and that what motivated our approach and attitude during the period of thraldom and national struggle cannot alone be the motivation behind programmes of progress in Free India. Today the Indian people are putting forth yeomen efforts to rebuild the economy and society on the basis of justice and equality. In the people of the country, too, there is earnestness to march forward and to so order development as to result in prosperity for all, in a higher standard for all, in the creation of the social and economic conditions for a better and fuller life for the masses. What could not be conceived of under foreign domination, have no application in conditions of freedom. What is needed is reflection and a dispassionate effort to understand and appreciate the change that has taken place, is taking place and adjust policies and programmes to accord with changing times, conditions and concepts of life. This does not, however, mean that in the march to progress we go away from all those human values and social mores which continue to condition Khadi work. There should be no harm if we sometimes enter into controversies with technicians or argue with those who would judge the Charkha spindle from the mill spindle standard. Often

scuh controversies and arguments lead to an appreciation of our own weaknesses and the weaknesses of others, Indeed, but for these the Ambar Charkha would not have found the place and importance it has, nor would the analyses of its yarn presented by the Atira and Technological Laboratory in Bombay been have possible. Their reports have done only good to the Ambar Programme, for both have found Ambar yarn superior in every respect to reeled mill yarn of similar counts. Thus have they helped to kill the myth that the mills produce superior qualities of either yarn or cloth. Any concept or programme which does not promote the welfare, progress and growth of the masses, has little value as a principle.

NO OPTION TO MILLS

"I would protect hand-spun Khadi against the home mills. But my strong belief is that Khadi will come into its own without any unseemly war with the mills. But, whilst Khadi has only a limited number of votaries, they,the votaries must necessarily preach Khadi in preference to and to the exclusion of yarn and cloth manufactured even in our mills. To give the option is to kill Khadi."

—Mahatma Gandhi

A THREE—YEAR REVIEW

BY
DR. J. D. SUNDRAM

The All India Khadi and Village Industries Board was set up in February 1953 "for preparing and organizing programmes for the production and development of Khadi and village industries, including training of personnel, manufacture and supply of equipment, supply of raw materials, marketing and research, and study of the economic problems of different village industries." With the completion of three years of its effective operation in the field, a review of its work becomes essential to assess partly the effect of the financial and other assistance extended by it and partly the scope for further development of the industries under its purview. This review attempts such an assessment which is of special significance in view of the role assigned to the industries in its charge during the Second Plan period.

Period of Preparation

Broadly, the analysis of the nature of the development programmes prepared by the Board for the industries in its charge, the nature and size of the sanctions accorded to them by the Government and the rate of disbursements made by the Board, shows that the three-year period was essentially one of preparing the ground for the performance of its essential functions. A considerable portion of the period during the first two years had *per force* to be devoted to the evolution of a *modus operandi* that would meet at once the essential requirments of Government procedure as well as of the decentralized village industries in the hands of illiterate artisans, scattered over vast territories of the country. Secondly, in the absence of an effective, efficient organizational machinery capable of undertaking specified tasks and their attendant responsibilities at different levels, particularly for the village industries, the pace of progress in the implementation of different schemes had necessarily to be slow, as at every step the Board had to satisfy itself about the capacity of the assisted institutions to discharge their duties. Thirdly, although from one point of view, the industries under its purview may be considered to be well-kown, established industries, the conditions in which they operated in most areas, on the one hand, and the social and economic conditions of the artisans, on the other, presented enormous organizational problems, the effective solution of which as well, contributed further to slacken the pace of progress. The evolution of an effective *modus operandi*

> **AUTHENTIC VOICE**
>
> "It is with pleasure that I send my good wishes to "KHADI GRAMODYOG" on the occassion of the completion of its second year of publication. During its brief existence the journal has ceaselessly striven to throw more and more light on the distinct place of Khadi and Village Industries in the economy of our country. As a purveyor of authentic and authoritative information in respect of this category of Industries it has carved for itself a unique place. I am sure it will continue to render its useful service to foster these industries under the able guidance of the Khadi and Village Industries Board. I send my warm greetings to those responsible for the excellent standard of this Journal."
>
> **K. C. Reddy**

with the Government officials, on the one hand, and the constitution of Statutory Boards at the State level, together with the emphasis on the formation of iudustrial cooperatives and the recognition of the need to extend financial assistance to artisans to become members of them, on the other hand, may be construed as the effective preparation of the ground to sustain larger development programmes in the future.

Khadi

Chief among the industries under the purview of the Board is Khadi, consisting of cotton, wool and silk. Though some work in woollen and silk Khadi had been done, the All India Spinners Association, from whom the Board took over the responsibility for the development of the Khadi industry, had developed the cotton section of the Khadi industry relatively better than of either wool or silk. As a result, the institutional arrangements as well as the training facilities available in either wool or silk were relatively smaller. The emphasis of the various development schemes prepared by the Board during the period under review was thus on cotton rather than on either wool or silk, though their production continued to increase under the impact of assistance for marketing devised by the Board.

Khadi Schemes

The development schemes under Khadi (cotton), though 11 in number, may be said to be mainly three :

1. facilities to increase production of (commercial) Khadi::

2. emphasis on Vastraswavalamban; and

3. specific aids to attain these two ends.

Chief among these aids were subsidised distribution of charkhas of various types among the artisans, incentives to promote hand-spinning in new areas, and special subsidies to institutions that raised their production and sale of Khadi. Loans for the purchse of raw materials such as cotton, implements, tools, etc., and loans for the trading operations, were part of the drive to step up production. To encourage spinning of higer counts of yarn by experienced spinners as well as to

draw fresh spinners in various new areas, the Board organized spinning competitions of different types to cater to different sections of the rural population. Besides these, there were subsidiary schemes through which the Board sought, on the one hand, to extend the area of spinning particularly to special classes of people such as convicts in Jails and, on the other, to revive decaying fine arts and also rehabilitating weavers families. To attain the various objectives of the schemes, the Board also provided for training personnel required for various purposes incidental to production and sale of Khadi and also for research in the economic use of raw cotton as well as in the implements used in various processes.

Progress of Expenditure

Table I sets out the details of the scheme-wise sanctions received and disbursements made by the Board over the three year period. A close examination of the figures set out in Table I, throws into sharp relief three significant features :

(i) the almost geometric progression of expenditure from year to year;

(ii) the absorptive capacity of the industry, and the scope for its rapid development under the impetus of timely assistance and assured markets; and

(iii) the striking rate of increase in expenditure on Vastraswavalamban Scheme.

The relatively smaller percentage of expenditure from sanctioned funds on exhibitions, training schemes, spinning competitions and Khadi hundies is due almost wholly to external factors such as the lack of facilities for holding exhibitions, non-availability of land or buildings and the absence of agencies to organize spinning competitions.

The development expenditure on the Khadi industry over the three-year period was Rs. 11.43 crores, as against a sanction of Rs. 11.81 crores. Of the total expenditure Rs. 2.99 crores were grants and Rs. 8.44 crores were loans for various purposes. It is of considerable interest to note that as against an expenditure of Rs. 94.99 lakhs in 1953-54 out of a sanction of Rs. 110.42 lakhs, expenditure in 1954--55 increased to

HUMILITY

"Khadi-Gramodyog" is entering into its third year from October. The silent work that the Khadi and Village Industries Organisation is doing is reflected in the humility with which the Journal is being carried on. I do not think one can come across greatar humility. But the work that it helps in doing is something tremendous. The message of the Khadi and Gramodyog Patrika concerns the teeming millions of India. For sometime to come, Khadi and Gramodyog will be the medium through which we shall be able to clothe our people with dignity and provide our people with bread. As it is, two-thirds of India is today living upon agriculture, Khadi and Gramodyog of one type or the other. I send my best wishes,

U. N. Dhebar

OF THE NOBILITY

On the occasion of the Second Anniversary of the Khadi and Village Industries Board's Journal I send my best wishes.

Khadi cloth and potter's utensils must be regarded as belonging to the true aristocratic culture of India. Machine made things are for the vulgar rich and the poor who cannot afford to pay for handmade goods. Let us try to be of the Nobility.

C. Rajagopalachari

Rs. 376.96 lakhs and to Rs. 671.78 lakhs in 1955-56. The percentage of sanctions to disbursements increased from about 85 per cent in 1953-54 to 92 per cent in 1954-55 and to 101 per cent in 1955-56. The excess of expenditure over the sanctions during the last year was due partly to unexpected increase in expenditure on sales, necessitating larger loans, payment of larger subsidy for saranjam and vastraswavalamban.

The rate of progress in expenditure on the development of Khadi during the three-year period clearly brings out the scope for further development available in the industry. Such a conclusion draws further strength from the pattern of development during the three-year period, during which the main emphasis was on channelizing aids through the institutions already in the field for quite a considerable time. Extension of the work to economically depressed areas to bring within its fold sections of population perpetually condemned to live sub-marginal and almost sub-human lives may well enable the Board to invest considerably larger sums than those assigned to it during the period. Of special significance is the relatively greater rate of expenditure on vastraswavalamban, success in which may well contribute substantially to raise the standards of living of such sections of the population needing this type of aid the most.

PHYSICAL PROGRESS

Targets and Achievements

The physical progress detailed in Table II, judged by any yardstick, is striking. The output of commercial Khadi increased by over 125 per cent during the three-year period, while production of Khadi under vastraswavalamban increased by nearly 900 per cent. A similar assessment of the progress in the output of either woollen or silk Khadi is not possible as the data set out in Table II cover a limited number of institutions in only a few States. The value of production as well as of sales of all types of Khadi increased by almost 250 and 300 per cent, respectively. A point of some importance is that the value of sales to Government as a percentage of total value of sales of Khadi was almost negligible, though the rate of increase in Government purchases is phenomenal.

Commentery on the physical progress on the rest of the items is not possible in view of the limited data available. Thus, for instance, informa-

tion on the number of charkhas introduced covers only a few of the institutions, and no detailed analysis is, therefore, possible.

Among the subsidiary schemes the most significant progress was in the extension of spinning to 26 jails during 55-56 as against 5 in 1954-55 and the rehabilitatiation of 171 weavers' families as against 84 in the previous year. The Board organized 1535 local, 8 State and one all-India spinning competitions during 1955-56 and awarded prizes to outstanding spinners. With the increase in the production and sale of Khadi, the number of exhibitions organized at different places also increased considerably over the period.

Sales Promotion

The satisfactory turn-over of Khadi noticed above is partly due to the activities of the sales development section of the Central Office of the Board. During the period under review, the Board set up 13 Bhandars in Andhra, 3 in Kashmir, and one each in Rewa and Simla, besides a number of smaller sales agencies all over the country. During 1954, the Board opened an Emporium at Bombay, and the sharp increase in the turn-over encouraged it to open another at New Delhi. The justification of the organization of these large emporia may be seen in the large turn-over effected by them during the last two years :

(Rs. lakhs)

	1954	1955
Bombay	10.09	24.95
New Delhi	-	16.89

Training Schemes

The progress in the implementation of the various schemes for training different types of personnel required for the implementation of the development schemes, lends further support to the claim advanced above, viz., that there is considerable scope for further development of the Khadi industry in the country. Table III sets out the physical targets and achievements in the training programmes during the three-year period. Except in the training of instructors at the Nasik Vidyalaya, achieve-

ITS ROLE

It is welcome news that the "Khadi Gramodyog" is celebrating its Second Anniversary. On the part of the people of India there is a growing realisation of the great economic and cultural value of Khadi and cottage industries in the context of the conditions and problems of this country. In its development programmes, the Second Five-Year Plan has assigned a significant place to this sector of the economy. Much more has to be and can be done. This, however, will depend on the degree of success that is achieved in the programmes that have been adopted. This requires an educative campaign on a large-scale. Towards this, Khadi-Gramodyog has to make a special contribution.

G. L. Nanda

> **THE ONLY WAY**
>
> I am glad that the Second Annual Number of "Khadi-Gramodyog" is being published in October. I am one of those who is convinced that without effective implemention of the plan for village industries India cannot hope to have balanced economy in which Sarvodaya meaning 'unto the last' can be secured. The economic situation in the country demands that decentralised production should be given as much weight and emphasis as, if not more, than large-scale mechanised production so as to distribute purchasing power and work on a wider and equitable basis. This, in my view, is the only way to usher in an era of co-equal and uniform prosperity for those who are living in villages.
>
> **Khandubhai K. Desai**

ment in all other schemes has been relatively good, in each case the achievement almost reaching the target. The main reason for the short fall in the training schemes at Nasik Vidyalaya was the delays in acquiring the building and lands from the Government of Bombay and the initial arrangements to secure the right type of candidates for the training courses. The relatively larger progress in the others may in part be attributed to the progress in organizing and locating the sanctioned regional vidyalayas in suitable places. The impact of the supply of such a large number of trained personnel on the development of Khadi industry will be felt only in the next few years.

Employment

The impact of the development of the Khadi industry examined above on the employment situation in the country-side cannot, however, be accurately measured owing mainly to the absence of comprehensive and complete reports from all the institutions in the field. The data on employment set out in Table IV below cover, only a few of the principal institutions engaged in the industry and are exclusive of a very large number of primary production, yarn and cloth centres in the country. In the circumstances, the data must be treated as illustrative rather than as accurate. The most important point that deserves notice in the data on employment is the progressive increase in the number of weavers for whom employment has been provided. The category "others" includes carders, dyers, printers, tailors and other miscellaneous workers employed at the production centres.

TABLE IV

Employment

(000's)

Category	1953-54	1954-55	1955-56
1. Spinners	260.08	348.52	406.43
2. Weavers	19.11	33.32	67.10
3. Others	3.65	5.43	10.43
Total	282.84	387.27	483.96

The bird's eye review of the progress of the Khadi industry presented above

shows that the financial and the physical progress of the industry is satisfactory, and the impact of the training programme on the pace of development of the industry is likely to be felt in the years to come. The increase in production and sales of Khadi, on the one hand, the emphasis on training as well as on research during the period under review, on the other, lend support to the view that a larger development programme can be undertaken and implemented during the Second Plan period.

VILLAGE INDUSTRIES

In an assessment of the financial as well as the physical progress of village Industries, it is essential to pay due attention to the problems that faced the the Board at the start. In the absence of recognised or established institutions of standing, as in the case of Khadi, or a machinery at the State level capable of utilising financial and other of types assistance made available by 'the Goverment through the Board, planned implementation of the development programmes presented an almost impossible challenge. Firstly, the initial spade-work to set up an effective organisatianal and/or institutional framework, had to be done. Secondly, arrangements had to be made to manufacture and distribute imporved equipment of standard specifications to artisans and their organizations wherever available. Thirdly, as in the case of industries such as Cottage Match, administrative procedures that had been followed hitherto had to be appropriately amended to suit the conditions of cottage units. Fourthly, in the absence of appropriate priorities, there were difficulties in the transport of materials from the places of their manufacture to those of their consumption, retarding the pace of progress further. Fifthly, adequate initial arrangements to implement the programme were not in all cases made by the assisted institutions. State Governments and State Boards. Lastly, but mainly, the relatively smaller physical achievement, in the village industries was due to the delays in the Government's approval of the Board's development programmes; on the one hand, and the nature of the sanction of funds, on the other. While the Government's spproval for most schemes was accorded towards the end of they financial year or long after the favourable conditions in which the could be initiated had ceased to

A NEW LINE

I send my best wishes to the "Khadi-Gramodyog"-journal of the All India Khadi and Village Industries Board - which is going to complete its second year. The Board has set a new line for spreading the message of Khadi and Gramodyog all over the country. The Chairman of the Board, Shri Mehta, has shown great vision, and I hope that the work of the Board will prosper more and more.

B. V. Keskar

ENDEARED

As one of the greatest champions of the cause of Khadi and cottage industries, "Khadi Gramodyog", published by the All India Khadi and Village Industries Board, Bombay, has, during the last two years, endeared itself to its readers, and I am sure that its Special Anniversary Number will be widely welcomed.

A study of the position Khadi and Village Industries occupy in the national plan of development—one of the subjects proposed to be discussed in the Anniversary Number—will, I trust, not only be useful to economists but, by further popularising Khadi and village industries' products, should also render valuable service to the country.

I wish the Anniversary Number all success.

P. S. Deshmukh

operate, the terms of the sanctions, particularly during the first two years, were confusing, and consequently, very little of the funds sanctioned could be effectively disbursed.

Financial Trends

Over the three-year period, the actual disbursement of funds for the village industries, as shown in Table V, amounted to Rs. 191.16 lakhs out of a total sanction of Rs. 266.84 lakhs. The development expenditure, which was no more than Rs. 13.31 lakhs in the first year, increased to Rs. 37. 82 lakhs and Rs. 140.04 lakhs in 1954-55 and 1955-56 respectively. The increase in the disbursements from 63.6 per cent in the first year to 71.41 per cent of the sanctions in the third year was due partly to the larger programmes, for which larger sums were sanctioned and partly to the progressive readiness of the institutions to avail themselves of the aids available from the Board.

Industry-wise, the largest disbursement was in the non-edible oil soap industry, accounting for Rs. 45.21 lakhs, followed by village leather and village oil, disbursements in which amounted to Rs. 31.78 lakhs and Rs. 30.96 lakhs, respectively. Analysis of the sanctions and disbursements, industry-wise, shows that, over the period, cottage match industry set the record for disbursements at 90.76 per cent of the sanctions followed by non-edible oil soap, village leather, hand-made paper, palm gur and village oil industries with 85.7, 78.84, 77.0, 71.8 and 70.5 per cent, respectively. The lowest percentage of disbursent was in the handpounding of rice industry over the period, amounting to only 46 per cent of the sanctions.

Year-wise and industry-wise. analysis of the sanctions and disbursements shows that the largest net increase was in the non-edible oil soap industry, disbursements for which increased from Rs. 2.62 lakhs to Rs. 32.92 lakhs, a 1157 per cent increase, followed by village leather, palm gur, cottage match and village oil industries.

PHYSICAL PROGRESS

Table VI details the year-wise and industry-wise progress in the organiza-

tion and construction of model, and /or training-cum-production and / or production centres together with the details of the distribution of improved implements during the three-year period.

The achievements of the village oil and bee-keeping industries stand out prominently. As against the target of 105 model centres, 87 model centres were actually organized during the period, of which 60 were in effective operation. Besides this, about 1000 improved ghanis were supplied during the period, 7067 ghanis were registered and 822 selling agencies were organized. Similarly, in the bee-keeping industry, as against the target of 15 area offices, 150 sub-stations and 25 model apiaries, all the 15 area offices, 135 sub-stations and 25 model apiaries were organised during the period. Of the 165 flaying centres sanctioned, funds were disbursed for 155 centres, of which 72 went into operation. The training-cum-production centres, model tanneries and bone crushing units have all been allotted to different institutions, and are in the process of construction. The most important achievement in the village leather industry is the construction and repair of 500 pits.

The progress recorded by the Gur Khandsari, Palm Gur and Handmade Paper industries was relatively larger owing to the existence of an efficient and established organisational machinery in all the States in the case of the first two and the existence of established production units in the third.

In the case of both Cottage Match and Pottery industries, physical progress was relatively small during the period, because in both the casess sanctions were received very late in the year, necessitating disbursements almost two weeks before the end or carry over to the next financial year, with the result very little by way of actual construction

Hearty Congratulations

"I am happy to know that the "Khadi Gramodyog" has completed two years of its very useful service. Ever since the All India Khadi and Village Industries Board came into being, that body has been working whole heartedly for the resucitation of the Khadi and Village Industries in the country. The "Khadi Gramodyog" has been ably setting forth the polices of the Board and also been rendering handsome service to the cause of Khadi and village industries by fearlessly enpousing their cause and exposing the hollowness of the specious pleas put forward against Khadi and village industries by their traditional enemies. The journal has also been very educative at the the same time. In the context of of the Second Five Year Plan and the emphasis that has been rightly laid by it on the elimination of unemployment in the country, importance of Khadi and village industries cannot be overestimated. The success of the activities of the journal is, therefore, very essential for the success of the Plan itself. I, therefore, heartily congratulate it on the success so far attained by it in its objectives and I wish it a long period of continued service to the noble cause which it has taken up and a steady accession of strength to it in the discharge of its duty."

M. Bhaktavatsalam

could be done. In ihe case of cottage match industry, the pattern as well as the volume of assistance to individual units had to be revised as a result of an altogether unforeseen development initiated by the Social Welfare Board which provided generous funds for the establishment of competitive B Class match units. Thus, owing partly to the delays in the sanctions in the first year and delays arising from extensive correspondence during the second year, the programmes of the Board could actually be taken up only during the first months of the third year. In the case of pottery industry as well work could actually be undertaken only during the latter half of the second year, funds for the first year being carried over to the second as a result of their being sanctioned too late for any scheme to be undertaken.

The progress in the Non-edible oil soap industry, which is an experimental venture in a hitherto untried field, deserves a special mention. The organization of the industry involves prior arrangements for the collection of non-edible oil seeds growing in inaccessible areas, arrangements for their storage and periodic crushing and their conversion into acceptable qualities of soap. The organisation of 10 A class, 4 B class and 4 C class units, each of which has gone into production, may be considered as an achievement of particular merit,

Production and Employment

Tables VII and VIII set out the available data on production, employment and earnings in each of the village industries. The data set out here, however, do not lend themselves to any type of an analysis of trends as :

(1) they cover only a fraction of the respective industries,

(2) they are mainly derived rather than compiled, and

(3) they are not available over the period covered. Consequently, they must be viewed as illustrative rather than as exhaustive.

Training Programme

The programme for the training of various types of personnel for each of the village industries over the three-year period together with the targets and achievements are set out in Table IX. To sustain the programmes for the introduction of improved methods of production and also assist in the manufacture of better implements, the training programmes were directed at the supply of personnel capable of discharging these tasks. Over the three-year period, the Board arranged for the training of a little over 12,000 persons in all the village industries. The relatively better showing of the Palm Gur industry is due to the training programmes undertaken by the States.

Intensive Area Scheme

The Intensive Area Scheme initiated in 1954-55 aims at the integrated economic development of a group of villages. Consequently, the acutal operation of the scheme extends far beyond the work directly undertaken by the Board. The application of the usual standards of measurement of the physical progress in each area may, therefore, not be appropriate to assess the actual development initiated. Besides, the main item of work in each of the areas is to condition the outlook and attitude of the resident population to undertake, on their own, development work and provide them institutional, financial and organizational facilities. Work is directed to survey the conditions in the villages with a view to preparing plans of work specifically suited to the resources in men and material in the given areas, allocating the tasks among sections of the population and executing them within a given time schedule. To elicit the cooperation of villagers, accustomed to extreme individualism, mutual jealousies and competition, and to organize them for cooperative endeavour to raise the level of the community life as the *sine qua non* of individual improvement, economic and/or social, are work that extends beyond the strictly economic or industrial activity. It is against this basic approach and objective of the scheme that the financial and physical review presented here must viewed.

Table X sets out the purpose-wise sanctions and disbursements during the two-year period. Of the total sanctions of Rs. 21.80 lakhs, disbursements amounted to Rs. 16.08 lakhs of which Rs. 12.83 lakhs were grants and Rs. 3.25 lakhs were loans. The need for providing assistance on an appreciable scale for the construction of essential social

ROMANCE OF KHADI

"The rebirth of Khadi provides almost a romantic story. Gandhiji's search for the implements of production was as assiduous, apparently, as his quest for Truth. He had not seen a handloom or a spinning wheel when, in 1908, he had described resort to these implements as the panacea for the growing pauperism of India. At last, in 1917 after no end of wandering in Gujarat, he remarks : "Gangben, then an inmate of tha Ashram in Ahmedabad, found the spinning wheel at Vijapur in the Baroda State. Quite a number of people there had spinning wheels in their homes, but had long since consigned these to the lofts as useless lumber".

Before resuming spinning, the spinners wanted readymade slivers. To secure these was a problem, which Gandhiji got resolved in Bombay with the help of Pinjaras or traditional carders. And then came the weaving of the handspun yarn into cloth, a start with which he made at the Ashram with the aid of a Harijan Weaver's family from Lathi in Saurashtra.

These were the modest beginnings of a nation-wide drive on which Gandhiji based his dynamic programme of resuscitating the Khadi industry, for the promotion of human dignity and of social equality throughout India".

—AIR, Bombay

overheads, such as godowns, community production centres and assistance for some field staff explains the reletively larger expenditure by way of grants. Expenditure in each area depends mainly on the ability of the given area to undertake, on its own, related responsibilities. In a scheme which thus aims at mobilising the enthusiasm of the people, on the one hand, and awakening them to the possibilities of development, on the other, expenditure programmes *per se* have no significance except in relation to the capacity of the area to absorb specified financial and / or other aids,

Of the 15 areas to be organized during 1954-55, 14 areas were actually set up and during 1955-56, 18 more areas were organized or, over the period, 32 as against the target of 35 areas were organized in different parts of the country. Details of the industry-wise progress in the intensive areas are set out in table XI. Production of goods or employment do not, however, reflect either the nature or the extent of the progress that has been achieved in different areas. Consequently, the figures Set out in this table are of limited significance to assess the progress of the scheme as a whole.

Besides the details set out above, the more important progress is the village survey in the Ajagara and the Allahabad areas to prepare realistic plans of development. On the basis of the surveys, plans of work were prepared for Raiyan and Sultanpur villages in each of the areas. The organisers of the various areas in the country met at a conference at each of the villages to familiarize themselves with the methods of carrying out a survey as well as of preparing realistic plans of work in their own areas. The implementation of the Raiyan Plan and physical and other progress achieved so far represents the principal achievement of the scheme and illustrates what can be achieved by mutual cooperation and common effort for the attainment of a definite purpose,

Conclusion

The review of the financial and physical progress of Khadi and village industries presented above shows that, by and larger, the period of preparation for undertaking large development programmes is nearly over. Though the institutional and/or organizational framework to execute the programme has not yet been developed on a scale large enough to extend assistance to the

majority of the artisans engaged in these industries, the constitution of Statutory State Boards and the emphasis on industrial cooperatives provide the organizational nucleus, which can be expanded in accordance with needs. The success of the various development schemes, during the Second Plan period is not likely to be threatened for want of the basic institutional assistance as in 1953-54.

While the physical progress as assessed by the progress in construction and/or organization of basic production and/or model centres is not discouraging, the impact of the development schemes on the economic conditions of the artisans engaged in Khadi and village industries, particularly the extent to which these schemes reduced unemployment or under-employment among them by providing opportunities for work, cannot be measured for want of essential data on employment and earnings. It is, therefore, of vital importance that those in executive charge of the various industries should pay greater attention to the collection of information on employment and related data.

The development of Khadi and village industries during the three-year period, particulary the programmes for the improvment of production methods through the introduction of improved and/or better and mone productive implements, underlines the need for effective consolidation of the work already done before undertaking schemes for further development. In other words, intensive productive effort rather than merely extensive distribution of aids of ths type already disbursed would appear essential to test the soundness of the schemes implemented and their capacity to show physical results during the Second Plan period. Such a consolidation would appear the more urgent in view of the allocations of production to the essential consumer goods industries under the Board.

TABLE

K H A

Scheme-wise

Item of Development	1953-54						1954-55					
	Sanctions			Disbursements			Sanctions			Disbursements		
	Grants	Loans	Total	Grants	Loans	Total	Grants	Loans	Total	Grants	Loans	Total
Sales Rebate	21.00	—	21.00	20.16	—	20.16	50.26	—	50.26	50.25	—	50.25
Saranjam Rebate	2.75	—	2.75	0.49	—	0.49	2.08	—	2.08	2.01	—	2.01
Production & sales subsidy	3.00	—	3.00	1.81	—	1.81	17.00	—	17.00	11.64	—	11.64
Promotion of Hand-spinning	—	—	—	—	—	—	0.75	—	0.75	0.64	—	0.64
Vastra-Swavalamban Subsidy	5.00	—	5.00	0.50	—	0 50	7.00	—	7.00	5.80	—	5.80
Direct Loans by Central Govt. to Institutions.	—	41.00	41.00	—	41.00	41.00	—	63.09	63.09	—	63.09	63.09
Loans and advances by the Board	—	30.00	30.00	—	26.15	26.15	—	56.25	56.25	—	40.91	40.91
Recoverable Expenditure	—	—	—	—	—	—	—	189.00	189.00	-	189.69	189.69
Non-recoverable Advances for purchase of raw materials	—	—	—	—	—	—	—	—	—	—	—	—
Development on intensive basis	—	—	—	—	—	—	1.50	0.75	2.25	1.20	0.65	1.85

* Government has been approached to approve the expenditure in excess of the sanction.

I

D I

Progress of Expenditure

1955-56						Total for three years.					
Sanctions			Disbursements			Sanctions			Disbursements		
Grants	Loans	Total	Grants	Loans	Total	Grants	Loans	Total	Grants	Loans	Total
85.00	—	85.00	79.84	—	79.84*	156.26	—	156.26	150.25	—	150.25
6.25	—	6.25	8.74	—	8.74	11.08	—	11.08	11.24	—	11.24
25.19	—	25.19	21.60	—	21.60	45.19	—	45.19	35.09	—	35.09
3.00	—	3.00	2.83	—	2.83*	3.75	—	3.75	3.47	—	3.47
15.00	—	15.00	22.20	—	22.20	27.00	—	27.00	28.50	—	28.50
—	—	—	—	—	—	—	104.09	104.09	—	104.09	104.09
—	174.69	174.69	—	174.69	174.69*	—	260.94	260.94	—	241.75	241.75
—	150.00	150.00	—	167.15	167.15	—	339.69	339.69	—	356.84	356.84
—	140.00	140.00	—	140.00	140.00	—	140.00	140.00	—	140.00	140.00
2.00	1.00	3.00	2.00	1.00	3.00	3.50	1.75	5.25	3.20	1.65	4.85

(Contd. on next page)

TABLE

K H A

Scheme-wise

Item of Development	1953-54						1954-55					
	Sanctions			Disbursements			Sanctions			Disbursements		
	Grants	Loans	Total	Grants	Loans	Total	Grants	Loans	Total	Grants	Loans	Total
Honorarium to workers engaged in sale of Khadi	—	—	—	—	—	—	2.07	—	2.07	0.17	—	0.17
Khadi Hundi	—	—	—	—	—	—	2.50	—	2.50	1.91	—	1.91
Spinning Classes in Jail	0.05	—	0.05	0.00	—	0.00	0.70	—	0.70	0.02	—	0.02
Rehabilitation of Weavers	—	—	—	—	—	—	0.45	—	0.45	0.42	—	0.42
Revival of Arts	—	—	—	—	—	—	0.81	—	0.81	0.75	—	0.75
Spinning Competitions	0.44	—	0.44	0.09	—	0.09	1.00	—	1.00	0.18	—	0.18
Ambar Charkha	—	—	—	—	—	—	—	—	—	—	—	—
Exhibitions	6.07	—	6.07	4.22	—	4.22	5.83	—	5.83	5.10	—	5.10
Training Schemes and Research	1.11	—	1.11	0.57	—	0.57	6.67	—	6.67	2.53	—	2.53
GRAND TOTAL	39.42	71.00	110.42	27.84	67.15	94.99	98.62	309.78	408.40	82.62	294.34	376.96

I

D I

Progress of Expenditure (Continued)

1955-56						1956-57					
Sanctions			Disbursements			Sanctions			Disbursements		
Grants	Loans	Total	Grants	Loans	Total	Grants	Loans	Total	Grants	Loans	Total
2.50	--	2.50	0.67	--	0.67	4.57	--	4.57	0.84	--	0.84
2.40	--	2.40	0.59	—	0.59	4.90	--	4.90	2.50	--	2.50
0.79	--	0.79	0.20	--	0.20	1.54	--	1.54	0.22	--	0.22
1.00	--	1.00	0.83	--	0.83	1.45	--	1.45	1.25	--	1.25
1.50	--	1.50	1.50	—	1.50	2.31	--	2.31	2.25	--	2.25
0.86	—	0.86	0.74	--	0.74	2.30	--	2.30	1.01	—	1.01
17.59	--	17.59	17.59	--	17.59	17.59	—	17.59	17.59	—	17.59
9.36	--	9.36	9.14	—	9.14	21.26	--	21.26	18.46	--	18.46
23.69	--	23.69	20.47	--	20.47	31.47	--	31.47	23.57	—	23.57
196.13	465.69	661.82	188.94	482.84	671.78	334.17	846.47	1180.64	299.40	844.33	1143.73

TABLE II

Physical Progress 1953-54 1955-56

Schemes	1953-54	1954-55	1955-56
1. Production (Mn. Sq. yards)			
Khadi Cotton :			
i. Commercial Production	8.56	15.07	19.07
ii. Self-sufficiency Production	0.53	1.53	5.03
Khadi Woollen	1.08 (a)	0.57	0.54
Khadi Silk	0.06 (a)	0.19	0.13
Total all Categories	10.26	19.09	24.87
2. Value of Production			
All Categories (Rs. crores)	1.73	3.31	4.78
3. Value of Sales			
All categories (Rs. crores)	2.22	5.65	7.06
4. Govt. Pruchases of Khadi			
(Mn. Sq. yards)	0.18	1.50	2.36
Value of Purchases (Rs. crores)	0.04	0.35	0.67
5. Promotion of Hand-spinning			
No. of charkhas introduced	—	5,820	N. A.
6. Miscellaneous Schemes			
a) Spinning Competitions :			
i. All India	Nil	1	1
ii. State	"	4	8
iii. Local	"	N. A.	1,535
b) Spinning classes in Jails:			
No. of Jails covered	—	5	26
c) Rehabilitation of weavers :			
No. of families	—	84	171
d) Exhibitions :			
i. Big	1	1	1
ii Medium	Nil	2	3
iii. Small	19	36	69

(a) Data incomplete.

TABLE III
KHADI
Training Programmes

	1954-55 No. of trainees Target	1954-55 No. of trainees Achievement	1955-56 No. of trainees Target	1955-56 No. of trainees Achievement	Over the period No. of trainees Target	Over the period No. of trainees Achievement
1. At the Nasik Vidyalaya						
a) 12 months' course	150	88	250	69	400	157
b) Instructor's course	50	Nil	50	9	100	9
c) **Training in Ambar Charkha**						
i. Spinner Trainees	50	50	200	200	250	250
ii. Worker Trainees	Nill	—	1,200	1,200	1,200	1,200
iii. Carpenter Trainees	Nill	—	600	600	600	600
2. Traininig in Khadi-cum-Village|Ind. and agency sales	500	460	1,500	1,462	2,000	1,922
3. Training in Khadi Salesmanship	140	28	100	70	240	98
4. Regional Vidyalayas :						
i. Number	3	3	12	8	15	11
ii. Trainees	120	100	480	324	600	424
5. C. P. A. officers Training :						
No. of officers	Scheme not in operation		143	143	143	143
6. Training through Peripatetic Parties :						
i. Khadi Part	250	111	(Previous sanction contd.)	89	250	250
ii. Intensive Part	135	N. A.	,,	N. A.	135	N. A.

TABLE

VILLAGE

Industry-wise Progress

Industry	1953-54		1945-55	
	Sanctions	Disbursements	Sanctions	Disbursements
Hand pounding of Rice	3.02	1.19 (39.40)	13.83	3.49 (25.23)
Village Oil	3.27	2.51 (76.59)	16.67	8.10 (48.61)
Village Leather	3.18	2.04 (95.79)	9.65	5.57 (57.73)
Cottage Match	1.91	0.27 (14.13)	3.07	2.99 (97.21)
Gur & Khandsari	—	—	0.94	0.20 (21.23)
Palm Gur	—	—	2.01	0.88 (43.64)
Soap Making	2.62	2.62 (100.00)	13.81	9.67 (70.09)
Hand-made Paper	4.05	2.31 (57.07)	4.92	4.33 (88.13)
Bee-Keeping	2.38	1.37 (57.56)	3.42	2.20 (64.32)
Pottery	0.49	—	1.27	0.39 (30.70)
Total	20.92	13.31 (63.62)	69.59	37.82 (54.34)

Figures in bracket indicate percentages.

V

INDUSTRIES

of Expenditure (Rs. in lakhs)

1955-56		Over the period	
Sanctions	Disbursements	Sanctions	Disbursements
22.76	13.66	39.61	18.34
	(60.01)		(46.30)
23.99	20.35	43.93	30.96
	(84.84)		(70.48)
27.48	23.17	40.31	31.78
	(84.33)		(78.86)
16.85	16.57	21.83	19.82
	(98.26)		(90.76)
10.54	5.59	11.48	5.79
	(53.15)		(50.54)
16.88	12.68	18.89	13.56
	(75.11)		(71.78)
36.34	32.92	52.77	45.21
	(90.59)		(85.69)
7.01	5.66	15.98	12.30
	(80.78)		(77.04)
10.45	5.79	16.25	9.36
	(55.40)		(57.60)
4.03	3.65	5.79	4.04
	(90.49)		(69.77)
176.33	140.04	266.84	191.16
	(71.41)		(71.63)

Table
Village
Construction

Industry	Production unit	1953-54 No. of units sanctioned	1953-54 No. for which funds were disbursed
Village Oil	Model production centres	–	–
	Improved ghanis introduced	1,000	387
Village Leather	Flaying Centres	30	21
	Training-cum-Production Centres	5	5
	Model Tanneries	–	–
	Bone crushing units	–	–
	Bone digesters	40	26
Cottage Match	'D' class factories	–	–
Soap Making (c)	'A' unit	5	5
	'B' unit	–	–
	'C' unit	–	–
	Model Centre	–	–
Hand-made Paper		(e)	–
Gur Khandsari	Multi-purpose & Gur Khandsari development societies	The Scheme was not	
	State Gur Khandsari Prodn. Centres	–	–
Palm Gur*	Board's development units	–	–
	Production centres in the States	–	–
Bee-keeping	Area Offices	7	7
	Sub stations	35	35
	Modeal Apiaries	–	–
Pottery	Model production centres	–	–
	Common worksheds	–	–

(a) Disbursement of funds for ghanis in excess of sanction was made possible by the internal

(b) Includes the 76 factories which were sanctioned in the previous year.

(c) An 'A' unit is a full unit with a capacity of 25 tons of soap; 'B' unit is a half unit with a

(d) $\frac{3}{4}$ unit is a special unit at Chomu, Rajasthan.

(e) When the Board took up the Hand-made paper schemes in 1953—54 already 35 centers were

* Details about sanctions and disbursement of the funds to the production centres under the

and 2,328 centrer in 1955-56 were actually in operation in the various States.

VI
Industries
Phase

1954-55		1955-56		Over the period	
No. of units sanctioned	No. for which funds were disbursed	No. of units sanctioned	No. for which funds were disbursed	No. of units sanctioned	No. for which funds were disbursed
35	34	70	70	105	104
500	500	1,000	1,076 (a)	2,500	1,963
60	59	75	75	165	155
5	4	12	12	22	21
7	7	50	49	57	56
–	–	40	40	40	40
76	51	150	79	266	156
76	76	176 (b)	176	176	176
17	17	$33\frac{3}{4}$ (d)	$33\frac{3}{4}$	$55\frac{3}{4}$	$55\frac{3}{4}$
1	1	32	32	33	33
6	6	44	44	50	50
1	–	–	–	1	–
15	15	20	16	70	N.A.
in operation		40	40	40	40
–	–	–	–	N.A.	444
–	–	56	56	56	56
–	–	–	–	–	–
3	3	5	5	15	15
65	67	50	40	153	140
25	25	–	–	25	25
5	3	2	2	7	5
–	–	20	4	20	4

adjustment of funds provided for village industries.

capacity of 12 tons of soap; 'C' unit is a quarter unit with a capacity of 6 tons of soap per annum.

in existence, Government sanctioned funds for assisting some of these centres.
State Government Schemes are not available. However, 3,401 centres in 1954-54, 4,171 in 1954-55

TABLE
VILLAGE
Production

Industry	Production category	Unit	1953-54 Production	1953-54 Value (Rs Laks)
Handpounding of Rice	Paddy dehusked (1)	Lakh Mds.	3.59	N.A.
Village Oil	Oil	Mds.	Nil	—
Village leather	Flesh Meal	Lbs.	Nil	—
	Tallow	Lbs.	Nil	—
	Horns	Pairs	Nil	—
	Bone Meal	Lbs.	Nil	—
Cottage Match	Matches	Gross Boxes	Nil	—
Gur Khandsari	Ordinary Gur	Lakh tons	—	—
	Quality Gur	Lakh tons	—	—
	Cream Jaggery	Lakh tons	Scheme not in operation	
	Rab	Lakh tons	—	—
	Khandsari	Lakh tons	—	—
	Mollasses	Lakh tons	—	—
Palm Gur (4)	Gur	Mds.	14,41,750	N.A
	Other products	Mds.	4,309	N.A
Soap with Non-Edible Oils	Soap	Mds.	Nil	—
	Oil-cakes	Mds.	Nil	—
Hand-made Paper	-	Tons	200	5.01
Bee-keeping	Honey	Lbs.	2,500	0.02
Pottery	-		Schemes not started.	

(1) Production estimated on the basis of the subsidy of As.6 per Md. paid by the Board.
(2) Production estimated on the basis of sales rebate of Rs. 2-8-0 per Md. paid by the Board.
(3) Exclusive of 873 gross boxes produced at the Sodepur Demonstration-cum-training factories.
(4) Production has not yet started under the Board's schemes; the figures relate to the schemes un-
(5) Data incomplete.
(6) Relates to only 9 States out of the 17 in which schemes are in operation.

No data available regarding the sale of village industries products except in the case of were sold by the Marketing Depot at Bombay; honey sold in 1953-54 amounted to 17,028 lbs (inclusive lbs in 1955-56 valued at Rs. 0.59 lakh; soap valued at Rs. 0.45 lakh and Rs. 2.58 lakhs was sold res-

VII
INDUSTREIS
And Value

1954 - 55		1955 - 56	
Production	Value (Rs lakhs)	Production	Value (Rs. lakhs)
4.00	N.A.	N.A	—
Nil	—	69,495(2)	1.73
4,984	N.A	19,853	Rs. 620
1,569	N.A	11,140	0.04
297	N.A	712	Rs. 178
Nil	—	1,27,212	0.04
Nil	—	2,690(3)	0.18
0.46	139.4	1.23	370.6
0.16	50.9	0.30	98.7
25 tons	0.10	86 tons	0.34
Nil	—	0.04	12.00
Nil	—	0.01	5.53
Nil	—	0.01	1.00
9,69,446(5)	N.A	15,30,070(6)	N.A.
1,432(5)	N.A	310(6)	N.A
1,139	N.A	5,353	2,36
1,330	N.A	7,574	N.A
400	11.42	661	16.87
19,500	0.19	45,680	0.57
		N.A.	0.58

dertaken by State Governments.

Cottage Match, Beekeeping and Soap with non-edible oils: in 1955-56, matches worth Rs. 0.51 lakh of accumulated stocks) valued at Rs. 0.17 lakh, 19,5000 lbs. in 1954-55 valued at 0.19 lakh and 45680 pectively in 1954-54 and 1955-56

TABLE

VILLAGE

Employment

Industry	Type of employment / Employment unit	1953-54 Full-time employment No. of persons	Earnings (Rs. lakh)
Handpounding of Rice	Perennial	N. A.	...
	Seasonal (1)	N. A.	...
Village Oil		26	0.42
Village leather	Flaying Centres	40	0.16
	Training-cum-Production Centres	Nil	...
	Village Demon. Parties	25	0.11
Cottage Match		...	...
Gur Khandsari	Perennial	N. A.	...
	Seasonal (4)	N. A.	...
Palm Gur		Industry not under the Board.	
Soap	Perennial	Nil	...
	Seasonal (5)	Nil	...
Hand-made Paper		1,000	3.98
Bee-keeping	Seasonal (6)	232	0.02
Village Pottery		Nill	...

(1) For 150 days in the year; part-time work is for 4 hours a day.

(2) Date are incomplete

(3) Included in the earning of full-time workers.

VIII
INDUSTRIES
And Earnings

1954-55		1955-56			
Full-time employment		EMPLOYMENT			
No. of persons	Earnings (Rs. lakh)	Full-time (No.)	Earnings (Rs. lakh)	Part-time (No.)	Earnings (Rs. lakh)
N. A.	...	169	1.48	35	0.21
N. A.	...	Nil	...	13,050	5.09
26	0.42	55 (2)	1.03 (2)	Nil	..
62	0.27	192	0.97	Nil	...
Nil	...	156	0.88	63	(3)
25	0.11	144	N. A.	...	...
...	...	328	N. A.	...	...
N. A.	...	343	0.39	577	1.20
N. A.	...	2,369	5.03	3,478	(3)
2,34775	N. A.	3,97,592	N. A.	Nil	...
Nil	...	203	N. A.	...	...
401	0.20	1,888	2.40	Nil	...
1,500	5.55	2,347	9.59	Nil	...
2,196	0.16	4,704	0.45	Nil	...
Nil	..	68	N. A.	Nil	...

(4) For 120 days in the year; part-time work is for 4 hours a day

(5) For 60 days in the year.

(6) For 150 days in the year.

TABLE
VILLAGE
Training

Industry	Type of training/ institution	1953 - 54 No. of training Centres	No. of trainees Target	Achievement
Handpounding of Rice		1	—	30
Village Oil	Inspectors		—	—
	Mistries		—	—
	Telis		—	—
Village Leather	Carcass Recovery	1	30	Nil
	Tanning	1	50	—
Cottage Match	Central	1	—	—
Gur Khandsari	(a) Training for local Hon. workers	—	—	—
	(b) Other trainees	—	—	—
Palm Gur	i, Central training at Bharatiya Tad Gud Bhavan	1	—	—
	ii. State Covt, training Centres,	—	—	—
	iii. Training Centres in 4 States	—	—	—
Soap making	Regional	—	—	—
Handmede Paper	Central	1	50	40
Bee-keeping	Apiarists	1	7	7
	Fieldmen	—	126	124
Village Pottery	Central	—	—	—
	Regional	—	--	--
	Total...			201

* Refers to the total mumber of persome trained during the year whereas the target reletes

IX
INDSTRIES
Programmes

1954 - 55			1955 - 56			Over the period
No.. of Centres	No. of trainees Target	Achievement	No. of Centres	No of trainees Target	Achieve; ment	No. of trainees Achievenent
1	—	49	1	—	37	176
	—	—		100	78	78
2	30	30	2	100	69	99
—	100	100		1,000	851	951
1	120	47	1	225	132	179
1	90	34	1	180	—	34
1	50	9	1	120	110	119
1	N.A	186	1	—	288	474
—	—	—	1	—	107	107
1	25	52*	1	N.A	203	255
591	N.A.	4,806	842	N,A,	3,511	8,317
			20	400	400	400
2	Nil	--	3	285	173	173
1	36	36	1	40	39	113
1	10	10	1	10	9	26
12	100	100	12	250	233	457
1	80	27	1	70	64	91
--	--	—	3	90	30	30
		5,486			6,394	12,081

only to specialised course of training.

TABLE
INTENSIVE AREA
Purpose-wise

Item of Development	1954-55						
	Sanctions			Disbursement			Sanc-
	Grants	Loans	Total	Grants	Loans	Total	Grants
1. Grants for 20 Intensive Centres for additional expenditure on Gur and Khandsari Pottery Fibre, Carpentary, Black-smithy, Bamboo and other Industries.	1.65	1.50	3.15	1.32	0.20	1.52	3.25
2. For meeting 2/3 cost of construction of godowns to 23 Centres	1.50	-	1.50	1.50	-	1.50	2.00
3. Grants for meeting 2/3 cost of construction of 35 community Prod. Centres	-	-	-	-	-	-	2.80
4. Grants for equipment to 35 Community Production Centres	-	-	-	-	-	-	0.35
5. 20 Centres for additional expenditure on Gur and Khandsari	-	-	-	-	-	-	-
6. Loan for meeting 1/3 cost of construotion of godowns for 20 Centres	-	0.75	0.75	-	0.75	0.75	-
7. Provision for staff workers for 12 months	-	-	-	-	-	-	4.20
8. Contingencies upto Rs.2000 to 35 Centres	-	-	-	-	-	-	0.70
9. Grants for 60 Cycles @ Rs. 500/- per area	-	-	-	-	-	-	0.10
	3.15	2.25	5.40	2.82	0.95	3.77	13.40

X
SCHEMES
progress of Expenditure (Rs. lakhs)

1955-56					Over the period					
tions		Disbursements			Sanctions			Disbursement		
Loans	Total	Grants	Loans	Total	Grants	Loans	Total	Grants	Loans	Total
-	3.25	3.33	-	3.33	4.90	1.50	6.40	4.65	0.20	4.85
-	2.00	1.90	-	1.90	3.50	-	3.50	3.40	-	3.40
-	2.80	2.73	-	2.73	2.80	-	2.80	2.73	-	2.73
-	0.35	0.33	-	0.33	0.35	-	0.35	0.33	-	0.33
2.00	2.00	-	1.30	1.30	-	2.00	2.00	-	1.30	1.30
1.00	1.00	-	1.00	1.00	-	1.75	1.75	-	1.75	1.75
-	4.20	0.96	-	0.96	4.20	-	4.20	0.96	-	0.96
-	0.70	0.65	-	0.65	0.70	-	0.70	0.65	-	0.65
-	0.10	0.11	-	0.11	0.10	-	0.10	0.11	-	0.17
3.00	16.40	10.01	2.30	12.31	16.55	5.25	21.80	12.83	3.25	16.08

TABLE XI

Intensive Area Scheme

Physical Progress 1955-56

Industry	No. of Intensive Areas covered,	Production Units set up, improved implements introduced.	production,	Employment Full time	Employment Part-(a) time
Khadi	24	Charkhas working } 11,537 traditional 116 Ambar	1.11 lakh sq- yds	N. A.	
Handpounding Rice	10		Paddy dehusked 2.004. mds.	15	29
Village Oil-	18	Ghanis working 24 Ghanis introduced or improved. 95 Ghanis Regd. 439	721 mds	41	12
Leather Industry.	4	-	454 hides 55 lbs. bonemeal	11	13
Cottage Match	1	-	52 gross boxes	Nil	25
Gur-Khandsari.	4	-	Gur-135 Mds. Sugar 35 Mds.	4	17
Palm-Gur.	3	- -	Neera Rs. 2,300 (value) Gur 10 seers	15	2
Non-edible oil Soap.	12	-	9,641 lbs.	23	59
Hand-made Paper	1	-	70 Quires	5	Nil
Bee-keeping	4	126 boxes distribted	Hony 103 lbs.	N. A.	N. A.
Pottery	17	Improved wheels-6	Rs. 20,328 (value of pottery wares)	46	91

NOTE- : (a) All persons who get employment some time or other but not for the whole day are treated as part time workers.

PROGRESS OF AMBAR PROGRAMME

In pursuance of the recommendations of the Ambar Charkha Enquiry Committee, Government sanctioned an essentially experimental programme for the introduction of 75,000 Ambar Charkha sets during the financial year 1956-57. The main purpose of the programme is to obtain comprehensive field data on all aspects of the Ambar Charkha, such as the productivity of the spinner in the distant villages, quality of the yarn spun on the Ambar Charkha and its acceptability to the weaver, the productivity of the weaver on the handlooms, and also the organisational machinery that can be set up by the Board and its effectiveness.

Saranjam Karyalayas

The Board was required to set up 50 Saranjam Karyalayas to manufacture the required number of Charkha sets. As against this target, 83 Saranjam Karyalayas, most of them established units of recognised institutions of very long experience in Khadi work, have each been allotted their share in the total prodution. In fact, the number of Charkhas that the 83 Saranjam Karyalayas have undertaken to manufacture during the period July, 1956 to March, 1957 exceeds the target of 75,000 charkhas by a substantial margin.

The number of Ambar Charkha sets manufactured so far is 14,207 as against the target of 19,000. But the figures set out in the table A refer, however, to the production of only 26 Saranjam Karyalayas. The actual number of charkhas manufactured during September, when complete data become available from all centres, may probably exceed the target.

Vidyalayas

The Board had undertaken to revive the 15 Vidyalayas set up during the Ambar Pilot Programme and set up 15 additional Vidyalayas to ensure an adequate number of appropriately trained instructors and mistries. As against this target, the number of operating Vidalyayas is 28 and arrangements for the starting of 3 more by the middle of October, 1956, have been finalised. During the current financial year adequate number of trained instructors to run all the Parishramalayas will thus be available in time.

Parishramalayas

The Board is required to set up during the current financial year 200 new Parishramalays and revive the 100 parishramalayas organized during the Ambar Pilot Programme, i. e., 300 parishramalayas. As against this, the total number of Parishramalayas set up so far is 152. During the first three operative months of the programme, 50 per cent

of the target has been attained and arrangements have already been made to start the balance of the Parishramalayas by the end of October. The data set out in the Table are, however, limited, as reports from many Parishramalayas have yet to be received.

The disbursements effected by the Board so far amounts to Rs. 63.5 lakhs, details of which are also set out in Table D.

Concluson

The progress made by the Board during the three months, July-September 1956, provides adequate reason for optimism regarding the effective execuion of the programme.

AMBAR CHARKHA PROGRAMME

A. SARANJAM KARYALAYAS

I. Production Target	July	August	September	Total
Decentralised	5,000	6,500	7,500	19,000
Decentralized Production :				
1) Production by Saranjam Karyalayas	1,228	4,839	2,629*	8,696
2) Production by Ahil Bharat Sarva Seva Sangh	1,100	1,405	1,064	3,569
Total	2,328	6244	3,693	12,265
Centralised Production (Bombay Firm)	500	500	942	1,942
Grand Total	2,823	6,744	4,635	14,207
II. No. of Charkhas distributed so far to Parishrmalayas	—	—	2,987	7,804

B. VIDYALAYAS

	July	August	September
I. General :			
1. No. of Vidyalayas operating	24	25	28
2. No. of Vidyalayas reporting	18	18	26
3. No. of Vidyalayas not reported	6	7	2
4. Total No. of Karyakartas admitted so far	714	N.A.	1,095
5. No of Karyakartas covered by the report	670	765	1,063

*Figures are incomplete as reports from 57 centres are yet to be received.

6. No. of Karyakartas discontinued	4	22	2
7. No. of Karyakartas under training	666	743	1,061
8. No. of Karyakartas completed training	–	–	633*
9. No, of Vidyalayas training Ambar Mistries	3	3	3
10. No. of Saranjam Karyalayas training Ambar Mistries	1	10	11
11. No. of Mistries under training	86	308	310
Total number under training	752	1,049	1,371

II. Production :

	July (lbs.)	August (lbs-)	September (lbs.)	Total (lbs.)
A. On the Traditional Charkha				
i. Slivers produced	99.1	346.85	260.3	706.25
ii. Coarse yarn (20's) produced	69.55	148.01	91.1	309.36
iii. Fine yarn (60's) produced	0.1	3.57	1.1	4.77
Total	69.65	151.58	92.9	314.13
B. Ou the Ambar Charkha				
i. Slivers produced	785.2	3,366,65	2,068.85	6,220.70
ii. Coarse yarn (20's) produced	519.65	2,216.45	1.509.6	4,245.70
iii. Fine yarn (40's) produced	8.45	48.83	53.0	110.28
Total	528.10	2,265.28	1,562.6	4,355.98
C. Charkhas fitted	57	266	451	774
Belnis fitted	111	208	191	510
D, Cloth woven (Sq. Yds.)	N. A	967	590	1,557

C. PARISHRAMALAYAS

	July	August	September
No. of Parishramalayas operating	119	130*	152
No. of Parishramalayas reported	36	82	125
No. of Spinners on the roll	5,422	8,192	10,237
No. of Spinners present	N.A.	4,041	8,635
No. of Charkhas operating	397	1,860	14,549

* Figures for September are Subject to revision

Quantity of Cotton supplied (Lbs.)	2,047	11,934@	13,759@
Quantity of Cotton consumed (Lbs.)	1,465	7,290@	8,260@
Varieties of Cotton consumed: 1. Jarilla, 2. Vijay, 3. Red Cotton, 4, Nanded, 5. Navasari			
Yarn produced (lbs.)	1,220@	66,588@ (Hanks)	8,302@
Cloth produced (yds.)	N. A.	3,602@	948@
No. of Spinners completed training	...	...	60@

D. DISBURSEMENTS

(Figures in Rs.)

Item	August	September	Total
A. **GRANTS**			
1. Parishramalayas	16,85,100	12,46,200	29,31,300
2. Vidyalayas	1.73,540	1.65,857	3,39,397
3. Functional offices (pay. T. A. & Propaganda)	828	733	1,561
4. Experiment on Ambar Charkha	58	500	558
Total	18,59,526	14,13,290	32,72;816
5. Payment to Goverment of Madras for starting Parishra-malayas	—	66,000	66,000
6. Payment to Government of Pepsu for starting Parishra-malayas	—	66,000	66,000
Total	—	1.32,000	1.32,000
Grand Total	18,59,526	15,45,290	34,04,816
B. **LOANS**			
7. Saranjam Karayalayas	14,70,600	12,75,600	27,45,600
C. **REVOLVING CREDIT**	2,00,633	—	2,00,633
GRAND TOTAL (A + B + C)	35,30,159	28,90,890	63.51,049

* The number reported last month was 145, which inclnded 15 Upaparishramalays.

@ Subject to revision, as data supplied are incomplete.

MAHATMA GANDHI : THE MAN AND HIS PHILOSOPHY

BY
VAIKUNTH L. MEHTA

'The subject of this talk is Mahatma Gandhi the man and his philosophy. But the two are not separate; for, more than any individual we have known in our own times Gandhiji was the living embodiment of his own philosophy. When we contemplate the richness and comprehensiveness of the philosophy and of the human personality that gave life to it we are inclined to agree with another great soul, Albert Einstein, who said that for future generations it might be difficult to believe that such a person ever, in flesh and blood, walked upon this earth.

However, to some of us who had the rare privilege of living in the same time as he did, Gandhiji, the man, has probably a greater significance than his philosophy, intertwined though the two were indissolubly. It was a very human personality that exerted a kind of personal magnetism, attracting to him not merely the millions who revere individuals reputed to possess spiritual greatness, but even intellectuals and hard-headed persons in all walks of life. That is because Gandhiji exuded love and understanding, and despite his moral loftiness placed himself on the same plane as those who came near him. The easiest way to avoid falling under his sway, as a Viceroy of India is supposed to have observed, was to avoid personal contact with him!

Human Traits

There was, to my mind, nothing esoteric or mystical about Gandhiji that could have exercised fascination. It is the human traits so characteristic of him that made Gandhiji loveable and adorable. Everyday in his life, Gandhiji held out before himself the Gita's ideal of a *Sthita Pragna*, the one who has conquered various passions and who is absolutely non-attached. And yet, I am not quite sure whether when Mahadev Desai and Kasturba left this world, Gandhiji did not show by his outward conduct a greater sense of grief than the phenomenon of death would ordinarily occasion in a person who is wholly unattached. He was stunned, almost unnerved for the nonce.

Born out of compassion, Gandhiji's attitude of tolerance was proverbial. He understood the failings and foibles of us, normal human beings. If it was so, why did he allow his feelings to be hurt when those nearest and dearest to him failed to rise to the ethical standards he set for them in his mind? That only showed that Gandhiji' had deve-

loped especial attachment for certain individuals, a very human trait which, in my eyes, made him all the more loveable.

Or let us take some other aspects of life as Gandhiji lived it. It was not only in money matters that Gandhiji followed the old adage that if we took care of the pennies, the pounds would look after themselves. There was hardly any detailed matter affecting not only his day-to-day life but his public activities and his relations with fellow-beings that he considered too trivial to claim his attention. In his concern for punctuality he had an outlook which, when he entered our public life, was considered somewhat eccentric. Despite this, when, on one occasion, I was late for an appointment by 5 minutes and he saw that my clothes were wet because I had to walk in the rain, he would not start the proceedings of the meeting I had gone to attend until I had discarded my wet clothes: I have still to discover world-renowned figures of Gandhiji's eminence, great as the political or spiritual leaders of their nations, so simple, so affectionate and so considerate.

Not Accidental

All this considerateness and emotional responsiveness was, however, not accidental. It had its roots in his philosophy of life. Love was an overpowering passion with him—love for all sentient beings. If in little matters affecting others coming to one's notice one showed emotional unconcern what value attached to one's identification with the whole of humanity? Presumably, this may be deemed to represent a materialistic attitude to one's surroundings in life. But spiritually great as I consider Gandhiji to be, I cannot conceive of him as "other-worldly", interested, principally, in his own salvation or in the salvation of other souls. Hence it is but natural that he had no strain of the stoic in him in his attitude towards human suffering. The Ahimsa or non-violence of his conception was not of the rigid variety associated with the practice of some religions. It was always positive and often dynamic.

A philosophy based on non-violence alone provides, however, an incomplete answer to the problems that life poses. A good life, as Mr. Bertrand Russell observes, is one inspired by love and guided by knowledge. That knowledge, Gandhiji considered, had to be acquired by strenuous effort all one's life. His search for truth started when he was very young; it continued throughout his life. The main difference between his seeking after truth and that of other saints and seers was that with Gandhiji his devotion to truth was, as it were, yoked to his love for fellow-beings. As a seeker after truth, it was not only the moral or the ethical aspects of life, much less the material ones, that claimed Gandhiji's attention. Yet his quest was different from that of others in search of truth in that he believed that people would be hungry for religion only when they ceased to be hungry for food. The

service of humanity was, thus, to him the best form of worship. To serve life instead of death, as Dr. Radhakrishnan has remarked, was one of his missions in life—distinguishing him, in a sense, from most of the other great spiritual leaders of India.

Social Justice

It is treading the path of truth that led Gandhiji to his espousal of the cause of social justice. On the spiritual plane, one soul has the same value as another, as all are fragments of the supreme being, it is that theory of equality which Gandhiji applied to our daily lives. Economic equality, Gandhiji hence deemed, as the key to non-violent swaraj. The removal of social disabilities for those regarded, during centuries, as untouchable was but a part of the programme for bringing about conditions of equality. Another part was Gandhiji's powerful advocacy of the cause of the peasant and the industrial worker. But the uniqueness of his contribution in this field consists in his emphasis on what is described as "bread labour". Every human being has a right to livelihood, but none who does not perform some physical labour and earn his bread by the sweat of his brow. Self-sufficiency, to the largest extent possible, for individuals and for groups, was thus the basis of his economic programme, the aim of which was to ensure economic freedom and equality for all in the country.

It is not, however, one aspect of life, important though that aspect might be, that engaged Gandhiji's thoughts. Life could not be divided into compartments ; man's life was to be treated as one whole. Concern for man's body, his mind, his emotions, his spirit formed the subject matter of Gandhiji's search for truth. His philosophy, therefore, covered an extensive range—nutrition and health, hygiene and sanitation, education for the young and the old, the place of art and literature in life, democracy and the State, war and peace, morals and religion, meditation and prayer. There is a common thread running through all Gandhiji's thinking on these subjects. Influenced as he undoubtedly was by the Upanishads and the Gita, there is no dogmatism about this social philosophy which represents the yearnings of a loving spirit in search of truth.

His Technique

The technique that he evolved to make us, the people of India, profit by his philosophy was again, unique. It is a notable contribution to the cause of social and moral advancement. Passive resistance, civil disobedience, satyagraha was the method he discovered and sought to propagate. To suffer oneself for one's belief but to cause no suffering to the opponent is of the essence of satyagraha, since one who is non-violent cannot inflict injury on those with whom he contends. It is only those who cast away evil thoughts from their minds, harbour no hatred in their hearts that can become good satyagrahis. Self-discipline, self-restraint, self

abnegation are virtues to be practised, not as part of austerities leading to renunciation of wordly ties and pursuits, but as aid to a good life dedicated, simulatenously, to the enrichment of one's personality and to the welfare of the Community.

Determination and courage of a high order are needed to equip one to the undertaking of these tasks. Firmness and fearlessness, almost incomparable, characterised all Gandhiji's actions. By the way in which he practised the gospel that he preached and more by the way in which he met his end, Gandhiji has secured a place among the immortals of all ages. Rabindranath Tagore once descricbed him as an 'illumined soul. Though concerned deeply in the mundane tasks of life, he proved that man can flourish best in the realm of the moral and the spitirual, when he allows his life in this world to be governed by rigid adherence to truth but, none the less, to be inspired by love.

Courtesy : A I R Bombay

A UNIQUE MOVEMEMENT

"Khadi is the symbol of self-help, self-reliance and freedom not merely of individuals or groups, sects or clans, but of the whole nation. It is a movement in which the prince and the pauper, men and women, boys and girls, Hindus and Mussalmans, Christians, Parsis and Jews, Englishmen, American and Japanese, if they wish well to India and get rid of the spirit of exploitation, can also take part. Thus it is a unique movement. It is good not merely for some, not merely for the vast majority, but it is good for all".

Mahatma Gandhi

VILLAGE INDUSTRIES IN INDIA

By
Dr. B. G. GOKHALE

From time immemorial the village has played a pivotal role in the social and economic life of the Indian people. The hand plough and the spinning wheel have always symbolized the self-contained Indian village community at peace with itself and with the world at large. The village was not only the unit of economic endeavour, but also the emblem of social cohesion. As a symbol of emotional appeal, the term has developed a complex of associations through the centuries. It is true that the city makes its appearance at a very early stage in the history of the country. The excavations at Mohenjo Daro and Harappa show that, as early as the second millennium before Christ, the city had already arrived on the Indian scene. These cities were busy metropolitan commercial centres from which radiated economic and cultural influences over a wide arc of area. But these cities were possible because of the existence of an extensive circle of numerous village communities producing that surplus on the accumulation and exchange of which the cities thrived.

Ancient Cities

Megasthenes, the Greek Ambassador at the court of Chandragupta Maurya (324-300 B. C.), gives a fascinating description of the great capital of Pataliputra; but is worthwhile noting that Kautilya, the author of the *Arthashastra*, devotes as much attention to the establishment and administration of the village as that of the city. Hiuen Tsang, the Chinese traveller who visited India in the 7th centry A. D., speaks in parise of life as lived in a city like Kanauj of Shri Harsha. Abdur Razak describes the glories of Vijayanagar and Bernier marvels at the riches on display in the imperial cities of Mughal Delhi and Agra. But all these cities differed radically in their structure and functional role from the cities of the modern Industrial Age. The cities of old were, very often, a combination of a market place and an administrative centre. Here were brought the products of human labour and ingenuity from the surrounding rural areas. The industries that existed in the cities were ancillary to the demands of an extravagant court and were limited in their scope and productive capacity. The bulk of the production was carried on in the innumerable villages that dotted the Indian country side.

Indus Period

The typical Indian village has always been a complex of agrarian and artisan functions each supplementing the other. Agriculture, of course, formed a major

occupation, but the very needs of agriculture and its seasonal operations gave village industries a significant importance in the economic life of the village. As early as the age of the Indus Valley civilization we see the emergence of spinning and pottery as two major home industries. The find of many spindles and spindle whorles in the houses in the cities of this pre-historic culture would indicate the fact that spinning of cotton and wool must have been a very frequent occupation for the common citizen in his hours of leisure and the discovery of spindles made of common clay as well as the more expensive faience would show that spinning attracted as much the rich as the poor. Two other small scale industries need a mention here. They were pottery and the manufacture of ornaments. The pottery of the Indus period has a long history of development behind it; it is wheel-turned, well-made and artistically decorated with geometric and animal patterns. Connected with this industry was another, that of toy-making, in which went all the fancy and ingenuity of the prehistoric craftsman.

The Vedic Times

The Vedic civilization was essentially rural-agricultural and the city proper had little place in it. The Vedic village (*grama*) consisted of a little knot of houses surrounded by cultivated land and pastures beyond which stretched all round the primeval forest. In its industrial life the Vedic society had already developed an increasing differentiation of functions within several industries. Workers in wood, thus, were divided into carpenters, joiners and wheel-wrights. Several hymns of the *Rig Veda* (X, 86, 5; I, 161, 9 etc.) refer to the work of the carpenter and describe his skill and dexterity. Work in leather was also another important small-scale industry and work in metals had already become an important part of organzied economic activity. Among the home or cottage industries mention may be made of sewing, plaiting of mats from grass or reeds, spinning and weaving of cloth. A charming simile in the *Rig Veda* (II,38) compares night and dawn to two young women occupied in weaving from which it is permissible to deduce that spinning and weaving were ordinarily tasks delegated to the women folk. In terms of social status there was no stigma attached to types of work involving manual labour. For example, the carpenter or the chariot-maker was regarded as an important member of society, important enough to be represented in the list of *Ratnins* or "Jewels" of the royal court.

The Village

The Aryan expansion and the consequent political and economic revolution led to the development of the village in functional terms. In the pre-imperial age of the *Jatakas* (7th-4th centuries B C.) and the epics we see the development of three distinct types of villages. The first type was that of the simple hamelt in which there was as yet

no sharp distinction between functions pertaining to agriculture and those pertaining to the arts and crafts. The second type was that of the industrial village inhabited, more or less, by people following a single craft or occupation. Thus we have references to villages of rush-weavers, bamboo-workers, carpenters and smiths. Finally there was the suburban village manufacturing the goods sold for immediate use in the city. The population in these villages ranged anywhere between 30 and 5000. The Buddhist books give us a long list of organized industries among which 18 handicrafts find a prominent place. Among the industries so mentioned are those of carpenters, smiths, leatherers, painters, workers in stone, ivory-workers, weavers, confectioners, jewellers, workers in precious stones, potters, fletchers, tanners, bamboo-workers, cane-workers and toy-makers. Several large towns had entire streets inhabited by families following a single occupation like that of work in ivory goods or weaving (*dantakara vithi* and *peasakara vithi*). That these occupations brought good returns may easily be inferred from descriptions which say that the craftsmen could maintain their families in comfort and spend money for their family and religious needs with little hesitation. (*Digha Nikaya. Samannaphala Sutta*). Most of these small-scale occupations were organised into guilds which looked after the interests of the craftsmen and spoke on their behalf. These guilds were an important factor in the economic life of ancient India. They were multi-functional organizations setting standards of professional efficiency and skill, fixation of prices, and also functioning as credit organizations. Inscriptions refer to the religious and pious endowments of such guilds. Their importance was duly recognized by the State and the headman of the guild was an important court dignitary.

The Arthashastra

The establishment of the Maurya Empire brought peace and prosperity to the country. Megasthenes notes with evident surprise that the inhabitants "having abundant means of subsistence, exceed in consequence the ordinary stature, and are distinguished by their proud bearing. They are also found to be well-skilled in the arts, as might be expected of men who inhale a pure air and drink the very finest water. The *Arthashastra* of Kautilya, which is generally taken to be a work representing the conditions of the age, takes due note of the importance of small-scale or cottage industries as means of full employment. Kautilya almost betrays signs of his fear of highly organized and large-scale industry and advocates the control by the State of several aspects of economic activity. At this time we see the simultaneous operation of three distinct types of industries such as state-owned or controlled, localised urban and rural and decentralized rural industries. Kautilya advocates that most of the important indus-

tries like mining and ship-building should be strictly controlled by the State while others should be carefully watched and controlled through taxation measures.

Self-Sufficing

Through the centuries the village industries continued to prosper. In the urban centres there came about a diversification of occupations and a localization of industries aimed at production for wide-spread sale and export. The Mughal Court maintained a department specialized in the manufacture of luxury goods produced for immediate use by the royalty and the nobility. Abul Fazl, the chronicler of Akbar (1556-1605) mentions the system of *karkhanas* through which such industry was organized. Outside the small circle of the Court flourished the village industries striving to fulfil local demands. The occupations had become hereditary and a certain specialization of functions paralleled by ideas of status had already developed. But in the innumerable villages, economic life, in spite of cataclysmic changes brought about by invasions and frequent wars, went on smoothly. The village group was "bound together by certain customs and with certain interests in common, possessing within the village means of local government and of satisfying the wants of life without much reference to neighbouring villages". In the 17th century, in spite of frequent warfare and the consequent wide-spread dislocation of economic life, "nearly all parts of the country were nearly self-sufficing in the matter of clothes as well as of food and other requisites". (Moreland, *India at Death of Akbar*, P. 105) The village communities, said Sir Charles Napier, "last where nothing else lasts. Dynasty after dynasty tumbles down; revolution succeeds revolution .... but the village communities remain the same. It was only with the establishment of the British Empire and the consequent total impact of the West on Indian life that the village seemed to be drained of all its former vitality and significance. The machine-made goods threatened the very existence of village industries and the villages faced poverty and misery.

Village Industries

The continued existence of village industries in india has had important social, economic and political implications. It has meant the decentralization of social and economic power and the creation of an institutional plurality which effectively stood between the ordinary citizen and a powerful State. Besides providing full employment to the rural folk, the village industries played an important part in the process of a decentralization of economic power on the rural level. The ability of the village to fulfil its own manufacturing needs gave it a remarkable social cohesion which could not be loosened in any significant way by even the most devastating war. History may have happened in Pataliputra or Kanauj, Delhi or Agra,

but it was always against the backdrop of stability in village life and industries. The village industries almost acted as a defensive economic wall against the ravages of time and man. And these industries were by no means primitive. Within their warp and woof they displayed the skill developed through generations of dignified toil. Through the centuries until the destruction of indigenous industries, the products of India were famed in all the markets of the world. These brought wealth to the country, but the wealth was seldom concentrated in a few layers of society. It is true that the royalty displayed fabulous riches, but the distance between riches and poverty was not so great and absolute as in more recent times. If the village industries taught the village independence in its ordinary life from the exaction of the capital, they also taught the people in the village interdependence. As A. S. Altekar has stated: "The peculiarity of the village occupations is that they are just what are required to make the village community self-sufficient. Go to any village in Western India and you will find there the carpenter, the smith, the barber, the washerman, the potter and the shoemaker". (*A History of Village Communities in Western India.* P. 89). On the other hand, by their very nature, they could satisfy a strictly limited and local demand. The rules of the caste system and the isolation of the village also imposed their limitations on the village industries, which reflected themselves in the stagnation of their techniques and the low social status of of the professions.

The Outlook

The village industres of the past functioned in a social *milieu* which was stratified in its composition and hierarchical in its spirit. They served the needs of small and strictly regional societies. The small regional societies are rapidly becoming a memory of the past and no tears need be shed over the passing of such porochial and stagnant groups. India has been and will remain for a considsrable time to come a nation of villages but these villages, in the changed historical circumstances, will have to undergo a metamorphosis. The dichotomy between the city and the village cannot be safely allowed to exist. But for this there must be a rejuvenation of rural life. Such rejuvenation is possible largely through the rehabilitation of village industries. Efficient decentralized production is possible only through the liberation of the village industries from the shackles of a stratified society and a stagnant technique. Primitive technique need not be a necessary condition of decentralized and effecient production. The stability inherent in old village life, through the functioning of village industries, must now be wedded to a new prosperity for the villager himself who, in his gnarled hands, carries the destiny of the nation. The social and mental distance between the village and the city

can decrease in proportion to the extent of the rahabilitation of the village industries. The village industries are the people's industries; the State can give them protection, but they must draw their sustenance and vitality from the people of whose life they must form the warp and the woof.

THE RIGHT ROAD

"I am realistic enough to understand that large-scale intensive measures for increased productivity have, so far, been undertaken only in countries in the West which have no problem of acute unemployment. Nor could I deny that in India and other countries in Asia where a large degree of unemployment is 'chronic', this aspect requires very serious consideration in regard to measures contemplated for increase in productivity. We cannot take a complacent view that any displacement arising out of measures of increased productivity will be looked after by the new demands in new or expanding industries. A more definite calculated assurance should be forthcoming that such measures will not worsen the unemployment situation. It is only fair to add that all reasonable employers in India have, by and large, accepted this position. The following observations were made by the first Mission:

> "In India manpower is plentiful and capital is scarce; the application of techniques to raise productiyity must, therefore, be governed by the need to make the best use of the abundant human resources, and to avoid waste of capital in all its forms—not only equipment but human skills, not only foreign exchange but the whole physical fabric of industrial life. Emphasis must, therefore, be placed upon productivity improvements requiring little or no new investment and not involving retrenchment or increase in unemployment; many changes can actually reduce capital requirements in relation to output and, by broadening the opportunities and conditions for expansion, lead directly, or indirectly, to an increase in the number of jobs available.
>
> "This is of particular importance in view of the fact that pressure of population and chronic unemployment and underemployment dominate the economic life of the country, and create a strong and understandable opposition to any change which is believed likely to reduce the number of jobs." — **V. K. R. Menon in ILO Bulletin**

FROM AKBAR TO GANDHI

[A Brief Survey of India's Traditional Industries : Their vicissitudes during three centuries.]

By
M. B. RAO.

The artistry and skill of the traditional industries and handicrafts of India have been inherited over a period of 3,000 years;

More perhaps than any other country has India been subjected to foreign rule, and overrun and devastated from end to end by armed invasion; and as a consequence its population is wonderfully mixed and receptive of foreign influences. Indian art has borrowed freely from Thuranian, Dravidian, Greek, Sassanian, Mongol, and European sources......The assimilative power of the Hindus is as remarkable as their receptive power, and in the hands of their hereditary craftsmen everything they copy in time assumes the distinctive expression of Indian art.

"Moreover, the code of Manu has secured in the village system of India a permanent endowment of the class of hereditary artisans and art workmen, who of themselves constitute a vast population; and the mere touch of their fingers, trained for 3,000 years to the same manipulations, is sufficient to transform whatever foreign work is placed for imitation in their hands, 'into something rich and strange' and characteristically Indian." (Birdwood)

It is in this environment of highly developed skills and glorious traditions in industrial arts, when population was sparse, and agriculture was still prosperous that the Moghuls settled down to administer a mighty Empire.

Moghul Period

According to Abul Fazl, Akbar's great minister, the Moghul Emperors of Delhi maintained in their palaces skilled workmen in every art of India. In the workshop of the Imperial wardrobe the manufacturers of every nation were found. "In the Indian Museum collection of Jade there is a large engraved bowl, on which a family in the employ of the Emperors of Delhi was engaged for three generations." These appointments were hereditary. Besides, through the encouragement given by the great native princes and chiefs, and the cultivated taste of the common people, the sumptuary arts of India were brought to such perfection.

India's foreign trade was in an affluent position. But one remarkable fact at this time was that small countries like England, Denmark, Holland and Portugal were considerably powerful on

sea by virtue of their large merchant and naval fleets.

> "The ships built by Indians could not stand bad weather and were not sufficiently armed while European ships were better armed, and could defy attacks of pirates. Had the State taken an interest in the building and arming of ships it was possible that European traders would not have gained a footing which they did". (Faruki)

Be that as it may, during the reign of the Moghuls, the industries flourished as usual, and Manucci had noted that at important centres of Agra, Lahore, Ajmere, Ahmedabad, Surat, Malwa, Patna, Tattah, Bhakkar, Aurangabad, Burhanpur, Rajmahal and in places in the Deccan, fine white cloth was manufactured. Gold and silver cloth as well as a great variety of silks were manufactured at Lahore, Agra, Benares and in Gujerat. Printed cloth was produced at Multan, Bhakkar, and other places. Several of them were also centres of production of such goods as lace, embroideries, plain and flowered carpets, tents, saddles, swords. coarse, and fine woollens, jewellery set with stones, gold and silver ware, earthen pottery as fine as paper, bows and arrows. Considerable trade existed in grain, cereals, salt and saltpetre, poppy, indigo, horses, camels, fruits, skins, musk, rubies and diamonds.

Aurangzeb's demise practically marked the beginning of the dissolution of a great Empire. Even by that time the economic conditions in the country had become somewhat confusing. According to Moreland;

> "A direct result of the high pitch of the revenue demand, approximating to the full, economic rent was to stereotype a low level of living"

The Maratha State did little towards the economic improvement of the country. Baden-Powell sums up the position:

> 'Unfortunately, however, the tenant class came to acquiesce in a state of things that kept them in a perpetual state of bondage; living near the edge of necessity, on a bare sufficiency with no surplus they had to work for their lives and could have but small enjoyment in them."

The important source of wealth in those times was agriculture. The surplus available therefrom was seldom used "but for the adornment of palaces and the filling of kings' treasuries." The sources of wealth were trade and manufactures. Both received considerable stimulus and prospered on account of internal demand as well as a large export trade.

East India Company

Before the days of the East India Company, India enjoyed considerable foreign trade. Many foreigners, notably the Portuguese and the Dutch, carried bulk of the merchandise The Indian merchants at Surat operated

upto the Red Sea Ports. Arab traders sailed the high seas freely. Contacts with the East Indies and even with China were maintained over the sea routes.

The East India Company established their first factory in 1611 at Masulipatam and by 1633 trade was extended to the seaports of Orissa. By 1650 commerce was carried into Bengal with a factory at Hughli, followed by two more at Patna and Kasimbazar. On the west coast of India, a vessel laden with indigo and cotton goods sailed for England from Surat in 1615–the first vessel to be sent to England from an Indian Port. (Camb. His. vol. v.)

Within a few years the trade expanded considerably. The goods most in demand were calicoes, silk, indigo, pepper, lac and saltpetre.

> "The Company foresaw the possibilities of the East Indian trade, and instituted a thorough organisation of the Indian industry under its management." (Shaafat Ahmed Khan)

By 1677 the trade increased enormously and the list from Bengal alone was:

1. Coloured Ginghams	10,000	pieces
2. Cassaes (Muslins)	10,000	,,
3. Mulmulls	4,000	,,
4. Silk Romalls	15,000	,,
6. Nillaes	10,000	,,
6. Fine Humhums of Dacca	10,000	,,
7. Taffetas	30,000	,,
8. Raw Silk	600	Bales
9. Saltpetre	1,000	Tons
10. Sticklac of the best & blackest	50	Tons

By 1671, the demand for raw silk shot up to 10,000 bales as against 600 bales just four years earlier. Trade in Indian Chintz and tapestries also developed to a great extent. The excellence of workmanship together with cheap costs of production (the wage being one penny a day), displaced the silk and woollen manufacturing industries in England. So much so, a law was passed by Parliament in 1700 by which all wrought silks, mixed stuffs and figured calicoes "the manufacture of Persia, China or the East Indies, were forbidden to be worn or otherwise used in Great Britain." In 1721 another law prohibited the wearing of all printed calicoes whatever; but it was modified in 1736 and calicoes were allowed to be worn, "provided the warp thereof was entirely of linen yarn". On the face of it, all such legislation was foolish and was completely set at nought by the "prodigious importation and tempting cheapness of Indian piece goods at that time." (Birdwood).

Of miscellaneous exports to England may be mentioned *cotton yarn* (largely used for fustians and other cloth manufactures), drugs, lac (for dyeing), carpets, and (later) sugar. As the Moghuls prohibited the export of gold and silver out of the country, the foreign merchant had to bring either merchandise saleable in the Indian markets or bullion and specie. Therefore, the

import of bullion and specie was the main item and most of the silver thus imported was at once coined into rupees in the Indian Mints. (Camb. His). People could freely get their silver thus minted.

The extent of India's foreign trade could be gauged from the fact that "the commerce carried on by the English was only an insignificant proportion of the total sea-borne trade of India; and it was not by any means equal to that of the Dutch in the same region." As far as the Company were concerned, starting in 1601 with a nominal capital of £57,473, the Company increased their capital to £ 1,100,000 and then to £ 3,200,000 by 1748, and thereafter in 1793 to the final figure of £6,000,000; that was not varied down to 1858, the year of their extinction.

Industrial Revolution

The 18th century proved to be a period of intense activity beneficial to Great Britain but disastrous for India from both the economical and political points of view. "After the invention of Arkwright's machine in 1769, the production points of Manchester developed so rapidly as to make it very evident that the Protection of manufactures against foreign competition was a violation of the first principles of politcal economy." (Bird-wood) By 1818, India was converted from an exporter to an importer of cotton cloth.

"A French missionary has left us a vivid description of the ruin which that (Industrial) revolution brought upon the cloth weavers of South India, but this aspect of the matter hardly attracted the attention of the Madras Government". (Cam bridge History Vol. V)

Though the British had established themselves as the rulers over large parts of the country, they were busy organising their revenue collections which, from this time onwards formed part of the Company's dividends.

By 1772, it was said that the Company had acquired an Empire and a revenue of £4,000,000.

Under the impact of the economic and political forces none of which could be said to have acted or reacted for the benefit of India, it was natural that India's economy faced collapse and disintegration by the end of the century. First of all there could be no greater calamity for any country or its people than an administration characterised by despotism and corruption both of which combined in an ample measure in the East India Company. Even more serious was the increasing effect of the industrial revolution on India's greatest industry, cotton and silk manufacture. The distress caused to the weavers in England itself became so acute that a Royal Commission was appointed in 1837 to enquire into the possibility of remedial measures. According to Morrison, 'the Commissioners themselves had no doubt that power-weaving was gradually supplanting hand-weaving

and of the future of the weaver they have no hope. Their recommendation with regard to the crepe weavers, who suffered exceptionally from irregularity of employment, is short and grim-

> "All that can be done for them is to enlighten them as to their real situation, warn them to flee from the trade and to beware of leading their children into it as they would beware of the commission of the most atrocious of crimes."

The distress in India among similar classes was equally acute, but there was no remedy.

The Aftermath

During the 18th century, India enjoyed considerable foreign trade and sent her own manufactures to many countries. But machine-production during the latter half of the Century had replaced her goods not only in her home markets, but in all those countries which formerly bought her goods. As the effects of the Industrial Revolution extended to other countries, her position in this respect became still worse in almost every foreign market. Thus disaster came to her almost simultaneously from all corners and finally overwhelmed her own economy.

The downfall of her prosperous industries, the rapid change in the pattern of her economy from a diversified one to an agricultural one, the reluctance or helplessness of the rulers to cope with the gigantic problems which were thrown up in the process, brought hunger and unrelieved poverty to the very door of millions of producers. During the 19th century the population increased from some 18 crores to roughly 29 crores, while economic opportunities rapidly narrowed down. Hence 70 per cent of her population had to seek their sustenance on land. Describing the conditions of this period, R.C. Dutt says:

> "Weaving and spinning are practically dead, as most of the thread and cloth used by the people are supplied by Lancashire. Paper manufacture has also declined, skins are now sent to Europe for all the better kinds of leather work, the dyes of the country have been replaced by the aniline dyes."

Again,

> "The British statesmen in the early years of the ninteenth century did all they could to promote British industries at the sacrifice of Indian industrises. British manufactures were forced into India through the agency of the Company's Governor-General and Commercial Residents, while Indian manufactures were shut out from England by prohibitiue tariffs."

Meanwhile the industrial economy of England needed large quantities of raw materials to feed her machines and with the crippling of Indian Industriaes side by side the administrators attempted to build up India's prosperity through her one remaining national industry, Agriculture. There thus followed complete change in the pattern of India's exports. Cotton cultiva-

tion was encouraged and export stimulated by abolishing duties on Indian cotton entering England. The export of food grains between 1849-1858 rose from less than a million to nearly four million sterling. By the end of the century it reached the high figure of £12,000,000 a year. Raw jute exports rose almost to £10 million. Indigo was cultivated under coercion from the European planters but its trade ended with the invention of chemical dyes in Germany. As regards sugar, "the 19th century had, indeed, witnessed remarkable alteration in the balance of trade in this commodity. At the beginning of the century India had been an exporting country; by the end of it she became an importer and was drawing her supplies from the very countries which had formerly been her best customers." (Ronaldshay). The grower and the refiner were finding it increasingly difficult to compete successfully with the bounty-fed product of the European beet-growers, the imports of which had increased from 12,000 cwt, ten years before to more than a million cwt in 1896-97. At the instance of the Mauritius sugar planters who demanded protection in the Indian market for their West Indies sugar imported into India, and under the inspiration of Lord Curzon, a Bill providing for counter-vailing duties was passed in the Legislative Council in 1899. So much for the claim frequently put forth by the Administrators that they wanted to rule India for the benefit and for material progress of her people !

Worse was the fate of silk. There was no question of any appreciable exports of silk manufcture any longer. Even in the case of raw silk, "the fall of the Bengal silk has been due to England's failure to patronise it. England's behaviour in this respect was the more regrettable since other European countries did not see any reason for abandoning Bengal silk in the same manner as England did. The cocoon crop of France and Italy began steadily to imporve from 1876 and yet France went on importing almost as much silk from India, and Italy imported it more and more of it". (Loetard, 1883, quoted in the Tariff Board's Report on Sericulture Industry, 1940). "It is chiefly this decline, this abandonment of the Indian supplies by the United Kingdom, that has brought about the fall of the Indian raw silk trade".

The 20th Century

An extra-ordinary situation had developed by the end of the 19th century. Industrialisation had made rapid progress in almost every country in the West. The world became divided into two groups, one possesing great economic strength and the other mainly subsisting upon agriculture and providing markets for manufactured goods from foreign countries. Population had increased almost everywhere. Colonialism had spread to the four corners of the globe. Trade and colonial rivalries had developed and opulence brought the great countrise to the brink of war

which finally burst in 1914.

In such an atmosphere, the problems of India had steadily accentuated and the British adiministrators were clearly puzzled. The economic forces operating during the century had led the country into a blind alley and the British rulers both consciously and unwittingly contributed to such a development. The disruption of India's self-sufficient and balanced economy was complete. The need for restoring the balance was urgent and obvious. But sufficient capital was not forthcoming. Nor was there any inclination to restore the traditional industry as a prop to the agricultural economy of the country at least to some extent. Population had grown and was knocking at the door asking for an opportunity for a decent life. The British rulers could offer nothing. Enmeshed completely in their Imperialist and Colonial ambitions, international rivalries and jealousies, and clinging to economic principles which brought prosperity to the mother country and economic ruin to their Empire and their Colonies, the British found themselves over-whelmed by the problems which they reared systematically and methodically over a century. In this country their only solution was to quit India, and they did so within 50 years, leaving behind a lamentable legacy of immense troubles and new problems to the people and their democratic administration.

Coming Of The Mahatma

At the close of the 19th century, from the point of view of the Indian Nationalists, the British had ensconced themselves on India even like the Old Man of the Sea on Sindbad's shoulders. And there was no possibility of shaking them off by any conceivable means of a practical nature. India had yet to wait for a while for her Liberator to appear on the scene. The size of the country, the size of her population and their extreme poverty and helplessness needed some unique leadership and not of the traditional type. The nationalist movement under the able auidence of Indians as well as a few Englishmen had already struck root in the Indian soil. They had set the ball rolling. But the problem of liberation of Indians as a people and as a nation was immence and had to be tackled and solved on a similiar scale, Tha magnitude of the problems carried one's mind far beyond the realms of human limitations, if any attempt were to be made successfully to solve them. India has been the land of great souls who by their achievements and their aspirations reached the heights of super-men. By tradition, temperament and thinking, therefore, the future Liberator of India should be one who could transcend the limitations of human passions which envelop men's minds just like atmosphere around the earth. Judged by these and similar standards, Mahatma Gandhi had succeeded in steadily attaining those heights. His movement was naturally conceived in terms of intense humanity

which alone could ennoble all men and enrich their mission in life. He had no hatred in his heart. The movement conceived in such a spirit naturally went to the heart of the problem of India's unrelieved poverty. To him, therefore, economic emancipation was synonymous with political liberation and both the issue must go together. Hence the importance of the constructive programme with emphasis on revival of village industries and restoration of social equality. India's tragic problems have been centred in the villages. They must be solved there. All other measures may be palliatives, but not remedies. It was clear to him that in a world situated as it is at present, the lifeless machine would not solve the problems of life. And until a method is found whereby the machine ceases to enslave man and ceases to accentuate poverty, he would have no use for it. Philosophical or ideological tenets always tended to be rigid and could be carried to absurd lengths by pedantry of logic. But within practical working limits there is always some good which mankind could derive from them. Any measure that serves to ensure that mankind derives the fullest advantage from humanity and justice would be acceptable to the noble preceptor. But until that method or system has been found, his teachings would retain their validity both at home and abroad. The programme of development of Khadi and Village Industries is part of his solution to the problems of life. Until alternative programmes intended to serve the same ends are fulfilled upto the atage when they render the Gandhian solution altogether superfluous, his programme will remain in the arena. One need not be dogmatic about Gandhiji's views. Whatever serves the best interests of mankind as a whole and without exception also serves his cause of humanity.

Prosperity as a positive reality in rural life has yet to arrive in modern India and, probably, it might take a long time too. But for the present, to arrest the desertlike spread of poverty in the villages, this programme would be quite helpful. Destitution is the spectre that stands before a population of excessive growth, in an enviroment of limited or unavailable resources. In the present conditions in India, as, indeed, in many other countries of the world, the solution to the problem of poverty, therefore, must be chiefly based on the foundations of a well-defined and immediately effective population policy. Whether the approach to its solution be Gandhian or Socialistic, whether it be based on traditional industries or modern techniques, each country must decide for herself, first and foremost, how many people she could comfortably feed and maintain in a prosperous condition. The phrase "unlimited resources" has steadily receded into a fiction of the by-gone age, and judged in the light of hard reality of to-day, each nation will have to strive for itself and struggle the utmost to achieve any prosperity worth the name.

THE GANDHIAN WAY

By
Dr. GOPICHAND BHARGAVA

Mahatma Gandhi thought of economic freedom and economic equality at the very beginning of the fight for freedom. He thought in terms of non-violance, i.e., Ahimsa (Love) and Truth. Therefore, he gave what is called the constructive programme to Congressmen and through them to the world. Besides other items, Khadi and other village industries were amongst the items of the constructive programm.

He said the following about Khadi :

"It connotes the beginning of economic freedom and equality of all in the country. The proof of the pudding is in the eating. Let everyone try, and he or she will find out for himself or herself the truth of what I am saying. Khadi must be taken with all its determinations to find all the necessaries of life in India and that, too, through the labour and intellect of the villagers. That means a reversal of the existing process. That is to say, instead of half a dozen cities of India and great Britain living on the exploitation and the ruin of the 700,000 villages of India, the latter will be largely self-contained, and will voluntarily serve the cities of India and even the outside world in so far as it benefits both the parties.

Khadi Mentality

This needs a revolutionary change in the mentality and tastes of many. Easy though the non-violent way is in many respects, it is very difficult in many others. It vitally touches the life of every single Indian, makes him feel aglow with himself, and makes him proud of his identity wit nevery drop of the ocean of Indian humanity. This non-violence is not the inanity for which we have mistaken it through all these long ages ; it is the most potent force as yet known to mankind and on which its very existence is dependent. It is that force which I have tried to present to the Congress and through it to the world. Khadi to me is the symbol of unity of Indian humanity, of its economic freedom and equality and, therefore, ultimately in the poetic expression of Jawharlal Nehru, "the livery of India's freedom."

Moreover, Khadi mentality means decentralization of the production and distribution of the necessaries of life. Therefore, the formula so far evolved is, every village to produce all its necessaries and a certain percentage in addition for the requirements of the cities.

Heavy industries will needs be centralized and nationalizad. But they

will occupy the least part of the vast national activity which will mainly be in the villages."

Village Industries

He used to say Khadi was to other village Industries like a sun in the solar system. He said about other village industries:

"These stand on a differant footing from khadi. There is not much scope for voluntary labour in them. Each industry will take the labour of only a certain number of hands. These industries come in as a handmaid to Khadi. They cannot exist without Khadi, hand-pounding, soap-making, paper-making, match-making, tanning, oil-pressing etc. Congressmen can interest themselves in these and, if they are villagers or will settle down in villages, they will give these industries a new life and a new dress. All should make it a point of honour to use only village articles wherever available. Given the demand, there is no doubt that most of our wants can be supplied from our villages. When we have become village minded we will not want imitations of the West or machine made products, but we will develop a true national taste in keeping with the vision of a new India in which pauperism, starvation and idleness will be unknown".

Duties and Rights

In accordance with our 'Constitution every citizen of India is entitled to food clothes and shelter. Nobody is entitled to get them free. Therefore, it means everybody must work for them. Unemployment is the main problem. When all work and produce one or the other necessity of life, production shall be sufficient. There can't be a scarcity. Work has to be provided on a full self-employment basis. There should be no exploitation. It has to be provided in their homes. Therefore, production of necessities of life on a self-employment and self-sufficiency basis is the only solution of this problem. Purchasing power can be increased and created through work only. Implements have to be improved, but not at the cost of saving labour and thus decrease chances of full and self-employment.

When work has to be given to every one in his home, village industries are the only way. This work ought to be done as a matter of duty. Rights follow duty. When every citizen has got a right to get food, clothing and shelter, it becomes his duty to work also. He is expected to live in such a way that it provides work to others.

War cannot end war and, therefore, class war cannot bring about classless society. The non-violent way of creating the classless society is changing one's ideology and then acting up to it.

KHADI : A DISCOVERY

By :
Dr. B. PATTABHI SITARAMAYYA,
(*Governor, Madhya Pradesh*)

It is little known that Khadi is only a discovery and not an invention. If anybody contends in the opposite way, we have a right to ask him whether there was Manchester cloth during the time of Shivaji. Our forebears were all wearing hand-woven cloth made of hand-spun yarn. But that is the fabric which we compendiously call Khadi. Mahatmaji himself did not think of hand-spinning till 1918 when his attention was drawn to a charkha. But he was confronted with the difficulty of finding the pinjaris who would make the slivers. When he was touring in the Krishna district in March 1921, he was surprised to find that the women of the agricultural class in the district were growing their own cotton and making their own slivers. He had an occular demonstrotion of this position of affairs in several villages in the Krishna district. The district is not, however, so advanced as in Assam where every bride has to weave her own marriage tunics and clothing, otherwise she is not eligible for marriage. In the Krishna district, every agricultural home has got its century old or half a century old charkha which had been relegated to the limbo of oblivion until Mahatmaji reinstated it as the instrument of national salvation, no less than domestic peace and plenty.

This Petty Machine !

Why do we call this petty little machine, which is popularly known as the charkha, by so pompous a name? But the fact is that the instrument is really such that its relegation to the *attic* has proved ruinous of the villages and the village homes. You ask me to prove my statement? The proof is simple. India's population in the 17th and 18th centuries might not be quite so big as it was and is later. But all the same, the villages made their own clothing, used it themselves and supplied it to towns. Let us take a village of 2,000 population and let us say that the average consumption would be 12 yards per capita. Today it is estimated at 18.5 yards. Therefore 12 yards would ba a modest figure: 2,000 people consuming 12 yards each would require 24,000 yards which might be priced at least Rs. 800/-, at the rate of three yards per rupee. When the charkhas were plying and the looms were at work, the villages saved Rs. 800/-a year, and until the foreign cloth was dumped on the villages, so much money was being accumulated by the villagers for centuries. What happened to disturb such a perennial supply of money?

Tables Turned

The East India Company, many people may not know it, having come to trade in spices—just a the Dutch had done earlier in the Spice islands—took much of our Khadi and sold it at a profit of 300 per cent in their own country. Queen Elizabeth, who used to spread the Calicos of India on the floors of her Palace, presently utilised it for her skirts, and Daniel DeFoe had a satire in which he taunted the Queen for allowing the cloth under her feet to mount on to her loins. Similarly, the hand-spun hand-woven silk of Murshidabad in Bengal used to be exported to England where the Squires and the Knights were making suits of this fabric and Daniel DeFoe again taunted them in a satire saying that if the Squires and the Knights of England were to strut about in Murshidabad silks, what would happen to the hand-spun hand-woven woollen goods of England ? But when money flowed from trade, considerations of patriotism were relegated to the background even in England. At the time when India was making its own yarn and cloth on the village instrument, England also was doing the same. The steam engine was invented in 1783 and the power so produced was applied to the looms and by the beginning of the 19th century they manufactured not only the cloth required for their use in England, but also began to export to the very country from which they were importing hand-spun hand-woven cloth. In 1803 we had Rs. 3 lakhs worth of mill cloth from England. In 1829 we had Rs. 29 lakhs worth of mill cloth. In 1929 we imported Rs. 72 crores worth of goods of which 66 crores was the value of cloth and 6 crores the value of yarn.

Villages Ruined

You may ask, if we imported so much worth of goods, our trade increased, our profits multiplied and therefore we must have grown rich ? But that is not so. What you say may be partially true. The merchant class, which is always ready to sell India to England or England to India for 5 per cent profits, may feel so but not the villagers. The import of 72 crores worth of cloth and yarn spelt the ruin of the villages. Tha yarn imported from England was softer, thinner and stronger than the hand-made yarn in India. The Indian weaver readily took to England yarn, and even so his cloth was not preferred by the Indian people as there was mill-made cloth imported which was cheaper, finer, softer, whiter and more glossy than the indigenous cloth. Thus the millions of India's spinners lost their occupation, and so did the lakhs of weavers. The manufacture of cloth and yarn constituted the alternative occupation of the village agriculturist during their leisure time. With the import of cloth and yarn, all the people of the villages who could depend partly upon agriculture and partly upon industry had to depend only upon agriculture, and the burden of maintaining the population became too much for mother earth. So, the petty agriculturist sold away his land and became agricultural lessees. The village labourers and lessees

migrated to towns for want of sufficient work in the villeges, and in the towns they had to depend upon what little work they could get, without a home, without the family and without a place where to hide their heads. Naturally they became subiect to disease, — either natural or acquired– and began to perish. So the import of Manchester cloth meant the depletion of the village population and the deprivation of occupations for those that remained. The migration of the rural population to towns and the ill-health led to premature death of the bulk of these migrants. Thus economically, financially and in point of health we suffered on the mill cloth of England being thrust upon us.

Swadeshi Movement

In the wake of the Partition of Bengal which took place in 1905, the leaders of Bengal contemplated a device with which to fight the English people and they betook themselves to Swadeshi which was at first confined, considering availability, to textiles, enamel, soap and candles. The immediate effect of the Swadeshi movement told upon the textile industry of England, but not to the extent of moving them to grant all the changes demanded by India in political and politico-economic matters. This movement gradually failed to gather strength and volume with the compulsory levies during the time of the First World War which gave rise to the Home Rule movements of Lokmanya Tilak and Dr. Annie Besant. The Home Rule movement placed the boycott of foreign cloth in the forefront of its programme and once more an impetus was given to the Swadeshi movement. This happened between 1917 and 1919 when the Home Rule Leagues were started all over the country—in towns and even in villages. Presently Gandhiji came on the scene and discovered how far denationalised the Indians were, particularly the educated Indians, and how far they contributed to the economic ruin of the country. He took a bird's eye view of the social, educational and economic conditions of the country and saw that Indian culture was abandoned and English language and culture, studies and examinations, became popular, and finally came the titleconferred by the English upon the Indians. He at once declared once again for Swadeshi; but he was not for boycott, for his programme was a constructive programme and wherever it had a destructive aspect, he took measures to construct at the same time so as to develop indigenous industries and institutions simultaneously.

Rest Of The Story

The rest of the story we all know. After three organized nation--wide movements in which India gave battie to England, we won Swaraj and within nine years, we not only raised our production of textiles to the tune of 6700 million yards a year, but are manufacturing 1000 million yards out of them for export. India has suddenly become an exporting country for textiles in place of being mainly an importing

country.

There is a tendency even amongst the members of families who had suffered during the struggle for freedom, to discard khadi end satisfy themselves with mill cloth. It would be something if at least they used hand-woven cloth, but even that does not seem to be in the minds of these people. Of course, in a country where there must have been lakhs of looms to supply to the whole population cloth varying in quality from 120 counts to 10 counts, there must be—surviving the onslaughts of time and circumstance—some lakhs of looms still from which we are today getting our indigenous cloth. It is our duty to help these weravers who would otherwise perish, for their calling is a technical one in which dexterity is requried for production of a supreme national need. Amongst the various political parties in the conutry only the Congressmen have made the wearing of hand-spun hand-woven fabrics compulsory in order that they may be eligible for voting at Congress meetings. It is a pity that the several other organisations which have come into existence in the wake of elections, do not impose such a restriction upon themselves. Nevertheless, the least that a patriotic citizen could do in our country is to confine his purchase to hand-woven cloth, whether it is khaddar or not. This is an economic need and constitutes an important item in the economic programme of any manifesto, and just at this time when Election pledges will be drawn up, it is trusted that every citizen will insist upon this item being incorporated int he manifestoes of the different parties.

DECENTRALIZATION

"In many respects the planned decentralisation of industry promotes balanced industrial and agricultural development. Several countries have found through experience that carefully planned industrial decentralisation brings considerable benefits to less developed rural areas by improving communications and opening up closer markets for perishable food products. It also tends to create supplementary employment, educational and recreational opportunities for farm families, and to halt the drift from the land as well as to attract persons away from congested urban areas." —ILO Bulletin, Aug. 1956

TASKS SET BY THE AMBAR CHARKHA

Professor N. R. Malkani who was on a flying visit to Bombay from the 18th September to 23rd September, visited the Tryambak Vidyalaya, Nasik; Kora Kendra near Bombay; Ambar Charkha Manufacturing Factory in Malad (Bombay) and three Ambar Parishramalayas in Kalyan. The article that he has contributed conveys his impressions of what he saw, which do not include the special arrangements the Board has made for Ambar training. He has expressed the view that now that the Khadi programme has been swtiched over from traditional charkhas to the Ambar Charkha, emphasis must be on the Ambar training and not so much on the traditional spinning. For a long time to come, however, the traditional charkha will have a place in the village homes and in the manufacture of Khadi. Training in it is as important as ever it was. It has been found that those who had attained proficiency in spinning on the traditional charkhas, have found it easier to operate the Ambar Cnarkha. Besides, finer and higher counts of yarn are spun on them. The Board's programme includes revival of ancient art and promotion of the production of the famed Dacca Muslin type of cloth. The machine has not been able to produce that type of yarn which is so fine, so delicate that one hardly can see the thread with which the legendary fabrics are woven. Where statements in the article which are likely to lead to mis-understanding, foot notes have been added to explain the points raised.

—EDITOR

By
PROF N. R. MALKAN

The new Textile Policy of Government has given recognition to all the four types of cloth production to meet the additional annual demand for about 1,700 million yds. at the end of the Second Plan in 1962. The most important part of that policy is the allocation of 700 million yds. to handlooms; but the most significant part is the immediate allocation of 300 million yds to Ambar Khadi and the prospective allocation of another 150 million yds., according to capacity. Production by Ambar Charkha at its fullest growth (i. e., 450 million yds.) would be less than one-third of the original estimate as prepared by the All India Khadi Board, but would be far more considerable than production of khadi by the traditional charkha. The target for 1956-57 is the manufacture of 75,000 Ambar Charkha sets and putting them into operation by March 1957. This programme immediately poses two problems before the All India Khadi Board and the country. One is the technical problem of manufacturing standard sets of Ambar Charkha and the other is the more important problem of imparting technical training to thousands at various levels. The question of actually producing, financing and marketing Ambar Khadi will come to the fore-front only in 1957-58 and after.

Some Impressions

Recently I had the opportunity of visiting the Ambar manufacturing Centre of the Khadi Board at Malad,

the Khadi-Gramodyog Mahavidyalaya at Tryambak, the training centre at Kora Kendra and the Parishramalayas in Kalyan-all in the Bombay State and very near Bombay City. I shall take the manufacturing centre first. Shri Dinkerji Patel of the Inventor's Industrial Corporation Ltd., Malad, formerly a manufacturer of powerlooms, has been asked by the Khadi Board to manufacture about 10,000 Ambar sets by March 1957. He commenced production on 15th June 1956 and is at present making 750 sets (of Charkhas and Belnis) per month. The centre is a completely centralised one, making all the 52 parts of the charkha and all the 30 parts of the Belni, both of iron and wood. There is division of wood work in 12 processes and of iron work in 20 processes, - for the iron parts, small and big, are more numerous than the wooden parts. There are 192 carpenters, 54 mechanics and 59 assemblers, assisted by 48 workers in the establishment. The daily wage of skilled workers varies from Rs.3 to Rs.6, with an average of Rs. 4-8-0 per day. The carpenters and machanics are all local, easily drawn from Bombay City and requiring very little special training for any process. It is probable that this firm will reach the target of 2,000 (5000?) sets in March 1957. There is a foreman for each of the three technical sections and a well-paid mechanical engineer at the top. It is a busy and crowded large workshop, with some power-driven machines, with many modern tools and a large number of skilled carpenters and mechanics. It is efficient in the modern sense and will probably achieve the prescribed target.

Decentralisation

But the workshop raises some questions which have to be answered if not now, soon after, To what extent would it be possible to decentralise the prodution of Ambar sets, to make a fuller use of village carpenters and smiths ? I was reliably informed that only one smiple part called 'KARIS' could and should be made by the village smith. Two other small parts-the traveller and the ring-are delicate and have to be imported at present from abroad. As it is, they are being bought second-hand from mills in Ahmedabad. The rest have to be made by modern tool-making machines, i.e; by drillers, turners, millers, manufactured abroad and worked by skilled mechanics here. Some spare iron parts would be supplied with each Ambar set, but the village smith may be trained to repair some other parts when necessary. The making of most iron parts would have to be an urban occupation, decentralised in time to the provincial and district town, but perhaps not lower than that. The wooden parts are mostly made by hand tools and, where accuracy is required, they are made by what are called 'Jigs' of iron, i.e., frames in which wooden pieces are secured beford being shaped. In the assembly section 2 per cent of iron parts and 10 per cent of wooden parts are being rejected, even after 4 months' working. This may be reduced to 1 per

cent and 5 per cent respectively by the end of march 1957. In Malad all parts are being made in the workshop, but in the Saranjam Karyalaya at Tryambak, 4 large wooden parts —2 frames of the charkha and Belni, the 4-spindle stand and the (Katai) spinning roller set are being made outside the workshop—but again by 20 carpenters of Nasik City. It is probable that in due course half a dozen large parts may be made even by village carpenters, but the assembling and testing of the sets may be at the district level or even at the tehsil level. Repairs of most parts may also be undertaken at the village level. The wood, both *shisham* and teak, must be seasoned and cut into required sections acccording to specification at the district and perhaps the tehsil level.

Not So Simple

Thus the problem of decentralisation is not so simple and will proceed by stages downwards, varying with the standard of skill prevalent in different regions. But it is certain that the village smith has hardly any place and the village carpenter has a very limited place in the manufacture of a complicated modern machine like the Ambar set, which has numerous delicate and precision parts. Meanwhile, it is upto a centralised centre like the one at Malad to train mechanics and master carpenters for the provincial and district workshops that are coming. It is also upto such a centre to have a research section for continuous improvements of various parts, now that the frame-work of the Ambar set is established. In fact, I was happy to see four improvements of important wooden parts—a stronger handle, a stronger roller group assembly, a stronger and simpler spindle block, a removable rubber roller with springs—that have been forwarded to the Khadi Board for final approval by the ATIRA at Ahmedabad. Large centres of production should also be partly centres of improved techniques.

Production Target

It is highly probable that the target of producing 75,000 sets by March 1957 would be achieved by a few large centralised workshops as at Malad and a dozen smaller workshops at the district level as at Nasik, producing 500 sets per month. In fact the Board is working for producing 25 per cent extra sets in order to actually operate 75,000 sets. But I wish the same could be said of the achievements of the Training Centres. The Ambar spinner requires 3 months' training to acquire the necessary skills. In order to operate 75,000 sets it is necessary to have a force of about 4,000 trained master-spinners, at the rate of 1 person for 5 sets, for each quarter, i. e., 20 sets per year. The master-spinner (Ambar Karya Karta) himself requires 6 months training, to be able to give 3 months training to the Ambar spinner. 4,000 master-spinners would require 40 regional training centres (Vidyalayas) preparing 100 trainees in two terms of six months each. To train 75,000 actual spinners would

require abcut 400 work centres (Parishramalayas) each training 200 in 4 terms of three months each. More than a hundred Parishramalayas have perhaps already been started under the Pilot Project Schemes * It would by no means be easy to start the rest within the few months now left. But the deficiency would be serious with regard to the regional Vidyalayas training master-spinners for the work centres. At present there are 7 Khadi Vidyalayas training about 40 students in several village industries and it is intended to open 7 more shortly. But to the best of my knowledge all these Vidyalayas are training "Katai Karya Karthas" on the traditional charka and going through the traditional 12 months course. The Vidyalayas are also training "Bunai Karya Karthas" in weaving traditional hand-spun yarn, with a training course of 15 months' duration. I do not see the need of any training in traditional spinning and weaving, when it is intended to convert the traditional set into the Ambar set. Nor is there any need for training any weavers in the weaving of Ambar yarn, which is almost as good as mill yarn. The tremendous need for trained master-spinners of Ambar yarn can only be met by almost doubling the present programme of Khadi Vidyalayas and confining them to the training of master-spinners, within half the period (6 months) assigned to the traditional course.**

Parishramalayas

In Ulhasnagar (Kalyan) which is a refugee township with a populatton of about one lakh, there are 4 work centres (Parishramalayas) of which I visited three. All the three were busy like bee-hives and I was told there was a queue of others, mostly women, waiting to be taken up for training. The township is a "concentration" camp of lower middle class refugees, who are being slowly reduced to the position of a working class proletariat. Any additional income is welcome and daily wage of as. -/12/- earned at home by a woman becomes a subsistance wage for the starving. It should not be difficult to introduce 1,000 Ambar sets in this camp-township and put a little life into the needy population. In fact, other refugee townships or extensions of towns would also be suitable centres for starting Parishramalayas. Jails, Widows homes, Orphanages and such other institution for the destitute, but mostly in urban areas, are also a promising field for such

* Including the 100 Parishramalayas started during the Pilot Programme, the Board has programmed for 300 Parishramalayas. Nearly 200 of these have gone tnto operation. Each Parishramalaya trains 400 Ambar spinners a year.

**Prof. Malkani refers to the Khadi Gramodyog Vidyalayas, which are distinct from Ambar Trainning. For the latter the Board has set up a Separate Department. There are at present 30 Ambar Vidyalayas where "Master-Spinners", "Master-Carpenters" and other technical and managerial personnel are undergoing training. Each Vidyalaya trains 80 persons in a year. Thus before March 1957, more than 2,400 technically trained persons will be available. These will be in addition to those who have already received training during and before the Pilot Programme.

work centres. On the other hand, big cities like Bombay or Delhi offer difficulties in the way of lack of accommodation for keeping 50 Ambar sets in one place. The trainees find it difficult to give more than 2 to 3 hours per day for training. Nor is the additional income earned required for purchasing necessaries of life.

Tryambak Vidyalaya*

The Khadi Gramodyog Maha-Vidyalaya at Tryambak (near Nasik) is the biggest training centre of the All India Khadi Board in India, with a capacity for training 150 persons in various courses. (It is intended to start two more of its type at Kora Kendra, (Borivali) and Krishnarajpuram (Mysore) with a capacity for training 100 each). It has in all 5 courses of training out of which 4 courses relate to traditional charkha spinning and weaving. Two of the courses for master-spinners are really meant for master craftsmen, who have to be trained for work centres as spinners and weavers. But none of them belonged to the class of craftsmen, not even the weavers. Almost all of them joined to secure a diploma of training and secure a job under the Khadi Board. There was not a single Harijan, though weaving is one of their traditional occupations. Two of the courses–for spinners and weaver instructors or spinners – are meant for the teaching staff of Regional Vidyalayas. But all the four courses have nothing to do with Ambar yarn spinning or weaving. Only the fifth course is for Ambar spinners and is for 6 months. There were 29 trainees mostly deputed by intensive work araeas of the Khadi Board and are expected to run Ambar work centres. In my mind there should be only two courses for Khadi in a Maha-vidyalaya–one for master-spinners and another for craft instructors for Regional Vidyalayas, in both cases the craft being the spinning of Ambar Yarn. Without some such concentration of effeort it will be extremely difficult to meet the vast demand for trained presonnel.

The Prospect

The Ambar Charkha has come to stay. It is probable that technical improvements will follow each other with such rapidity that we may have an Ambar set of 1957 model, of 1958 model and so on for some years. A number of Regional Textile Research Institutes should test, sift and introduce these improvements from time to time. As the production techniques descend to the district and tehsil levels, the techniques of repairs and maintenance will seep down to the village level. There is little scope for machinery on the peasant farms of India, where improved tools and agricul-

* The Tryambak Maha-vidalaya is not soley devoted to training in Ambar Training. It was started as a Khadi-Gramodyog Vidyalaya. The trainees are those deputed by recognised institutions, State Boards and State Governments. It has a separate course to train instructors and organisers. Another Section is to train C. P. A. candidates. Ambar Training is mainly confinined to training of instructors of Ambar Vidyalayas.

tural knowledge will have a growing scope in intensive cultivation. But there is a wide field for the introduction of improved types of machinery in Khadi production and other village industries. Probably, this is the way that rural areas will become machine-minded and scientifically trained. The Ambar set has caught the imagination of the lower middle class in urban areas, a class which can be persuaded to combine scientific knowledge with manual labour. This class was the backbone of the Independence movement and gave a lead to the peasants during the satyagraha movements. The Ambar Charkha and that all it means may also give this leadership to the same class and serve as the spearhead for the economic regeneration of both the peasant and craftsman in the most backward areas of India. The training centres of the Board should not lose sight of the potentialities of the Ambar Charkha—in making the villages machineminded and in bringing a harmonious relationship between the town and village dwellers.

WHOSE CHOICE ?

" By a process of exclusion one arrives at the irresistible conclusion that the only universal industry for the millions is spinning and no other. That does not mean that other industries do not matter or are useless. Indeed, from the individual standpoint any other industry would be more remunerative than spinning. Watch-making will be no doubt a most remunerative and fascinating industry. But how many can engage in it ? Is it of any use to millions of villagers ? But if the villagers can construct their home, begin to make good use of their idle hours, all else, all the other industries; will revive as a matter of course. We make little headway because we have an unclassified catalogue of industries for the people to choose, when we should know that there is only one industry it is possible to put before all. They may not all take it up. Let those who can and wish to, by all means, take up any other. But national resources must be concentrated upon the one industry of hand-spinning which all can take up now and besides which the vast majority can take up no other." —**Mahatma Gandhi**

QUESTIONS AND ANSWERS

The Ambar Charkha Programme of the All India Khadi and Village Industries Board, as approved by the Government of India, is already getting into full stride. In the two or three months during which the programme began to be set in motion, there has been considereble progress.Targets for the manufacture of Ambar Charkha sets and the performance of the Saranjam Karyalayas show favourable results. Yet questions continue to be asked about the programme, its objectives and the capacity of the Board to organise and execute it successfully. Below are some of the more important of these questions and the answers to them :

Question : What are the objectives of the Ambar Charkha Programme ?

Answer : The main objectives of the Ambar Charkha Programme are to provide employment to landless agricultural labourers in the rural areas, part-time and/or full-time to agricultural families—men and women of all ages. The secondary objective of the Ambar Charkha Programme is to reduce progressively the pressure on land, on the one hand, and, on the other, give an instrument that, while helping these various sections of the population to attain self-sufficiency in an essential article of consumption, will also enable them to earn a supplementary income.

x x x

Question : Can the Board set up the necessary organisational machinery to implement the programme ?

Answer : Yes. The machinery already exists. Strengthening it goes on alongside the progress of the scheme.

x x x

Question : Will you kindly explain the nature of the organisation that is in-charge of the programme ?

Answer : The Board operates through 300 and odd registered established institutions with wide and varied experience of organising production and sale of Khadi in the country. These institutions have firm contacts with the poorest sections in the community. They are aware of the region--wise requirements and aptitudes and can work out for expansion programme The Board's Ambar Programme is to be divided among these institutions in accordance with their respective capacity in terms of executive personnel and established contacts.

x x x

Question : How does the Board propose to get 75,000 Ambar Charkha sets manufactured?

Anwers : The Board propsses to get the 75,000 Ambar Charkha sets manufactured through Saranjam Karyalayas attached to the established recognised

Khadi institutions in the country. 83 Saranjam Karyalayas, scattered all over India, have already come forward. Each has taken up a specific establishment in the total production programme. While these Saranjam Karyalayas will manufacture Charkhas exclusively on a decentralised basis, meet local demand of Parishramalayas and of spinners, some of the institutions have also made arrangements with established engineering firms. for the manufacture of 10,000 Ambar sets. This is merely a safety measure.

x x x

Question : (a) What is the Ambar Charkha set ? (b) How does the Board ensure that each part of the set is technically sound and capable of working well ?

Answer : (a) The Ambar Charkha set consists of Dhunai Modhia or the carding instrument, the Belani or the slivering machine and the Charkha which is a 4 spindle spinning unit. Research has enabled the Board to combine the Dhunai Modhia and the Belani in the same instrument, on the one hand, and the Belani and the spinning unit also in the same instrument, on the other. Though the Charkha set at present consists of 3 separte units, progressively this may be reduced to 2 collectively costing about Rs. 80 to 90.

(b) Tne Board has an experienced and well qualified inspectorate to tour from place to place examining the equipment and the output of each Saranjam Centre Charkha sets are not delivered either to the Parishramalayas or to the spinner, unless they have passed the technical test prescribed by the inspectorate.

x x x

Question : What arrangements have been made to service or repair the Ambar Charkha sets in the hands of the spinners ?

Answer : The inspectorte has also made adequate local arrangements through the Saranjam Karyalaya and the Parishramalaya each of which has expert, skilled carpenters and other technical personnel. Parishramalaya as well as the Saranjam Karyalaya, in addition to the parent institution, will each have adequate spare parts and technically trained staff to attend to this work. Consequently the servicing of the charkha in any region will not present any problem.

x x x

Question : What are the arrangements to distribute the Charkhas to the Parishramalayas, on the one hand, and to the spinners, on the other ?

Answer : Charkha sets are tested and will be taken over by the Parishramalayas on the instructions of the parent institution. The charkhas will be distributed to only such of the spinners who have satisfactorily undergone the training at the Parishramnlayas and are competent to handle the charkha set by themselves in their homes.

x x x

Question : What are Parishramalayas? How are they organised? Through

whom are they run ?

x x x

Answer : Parishramalays are training work centres. These training work centres vary in size. Ordinarily each has a maximum capacity for training 100 spinners at a time. There are these with as low as 10; but these are Upa Parishramalayas which form part of a Parishramalaya. Upa parishramalayas are set up to meet local requirements.

All these are run by trained instructors on the spinning side and on the technical side. Each Parishramalaya will have on instructor for every 10 persons. There instructors will be Karya Karthas or spin: ning instructors and Miftries or trained carpenters.

x x x

Question : How does the Board ensure that the spinners are given adequate and satisfactory technical training in the operation ot the Ambar Charkha set ?

Answer : To ensure satisfactory technically trained spinners, the Board has instructors' training course for what may be described as spinning masters and Ambar mistries or trained fitters who will instruct the spinners to keep their charkhas in good condition. The instructors' training course is of five months' duration and is rigorous in nature.

Question : Does the Board have proper staff at the Vidyalas ? Are tney adequate in number ? Are the examined before being posted to Parishramalayas ? How many instructors will be trained during the year ?

Answer : There are 30 Vidalyayas where the instructars are trained. Each of the 30 Vidyalayas has picked sfaff, each one of whom has been appointed on the basis of his field and technical experience, capacity to teach as well as experience in teaching. They have besides, extensive experience of the Ambar Charkha and of its nuances. Each of the 30 Vidyalayas is equipped to train 50 instructors at a time. Already there are quite a number of trained instructors. Thus the Board will be able to meet the requirements of the 300 Parishramalayas proposed to be run during the current year. The instructors have to pass the theoretical and practical test before being posted to Parishramalayas. During the year the Boardwill be able to train about 3,000 additional instructhrs.

x x x

Question : Will you kindly say a few words on the arrangements in the field to implement the programme ?

Answer : Arrangements have been made with institutions all over the country to implement the programme. The allocations to each institution are based on the number of charkhas each will introduce in its area. The basis of the allocation is at the rate of

one Parishramalaya for every 400 trainees.

x x x

Question: How far has the Board progressed in the implemention of the programme ?

Answer: 172, Parishramalayas have already been set up, 40 Saranjam Karyalayas have already gone into full production and 30 Vidyalayas have been set up. Over 15,000 Ambar Charkha sets have already been manufactured. Over one thousand instructors and 400 carpenters have already been admitted for training. Half of them will be completing their training in another few weeks. About 18,000 spinners are under training in various places.

EQUIPMENT AND PEOPLE

"Efforts to increase employment opportunities in agriculture are unlikely to be on a large enough scale to have much influence on under-employment in rural areas, particularly given the constant natural increase in the rural population. More and more governments are, therefore, giving attention to measures for increasing employment opportunities outside of agriculture, for the purpose both of drawing off workers permanently and of providing seasonal employment during those times of the year when little farm work is done.

One opportunity is afforded by small-scale rural industries, particularly those using raw materials available in the locality. While large-scale industries offer certain advantages, many have limitations because of the relatively big amounts of capital and higher levels of skill often required.

Japan's experience shows small-scale industries and hand-crafts in rural areas may provide subsidiary employment for agricultural workers and their families and contribute to family incomes. In 1952 non-agricultural income constituted one-third of total income in Japanese farm households, with only 12 per cent of the working days so used, and the proportion of non-agricultural income increased as the size of farm deceased. It is belived that it is largely by finding off-farm employment that the Japanese farmer is able to maintain his level of consumption. In Yugoslavia recent studies show that non-farm income is about 40 per cent of total earnings of farm households".

ILO Bullein, Aug. 1956.

THE AMBAR CHARKHA PROGRAMME*

By
DR. GYANCHAND

The programme for the production of cloth made of Ambar Charkha yarn has, as is well known, a social significance of its own. Under the Government of India's Textile Production Programme of the Second Five Year Plan, only 300 million yards have been assigned to the Ambar Charkha out of an estimated annual output of 8,400 million yards – or only one twenty-eighth of the total. The limit, if adhered to in the execution of the cloth production programme, would greatly detract from the value or importance of the A.C.P. and have a depressing effect on the ardour of the believers in village industries as an integral and essential element in the development plans of the country. Apart from this important quantitative aspect of the matter, it is well to bear in mind the social theory implicit in this programme; for it is unfair to cloud the issue by not facing it squarely or regard the A. C. P. as a concession to the hallowed memory of Mahatma Gandhi or to the ardent faith of his devoted disciples for whom the Ambar Charkha is a symbol and an instrument of the decentralised economy in and through which a social revolution is to be brought about.

Basic Objectives

It is not necessary to set forth or discuss at length the essentials of this social theory; but in order to assess the A. C.P.–its policy and implementation–it is necessary to bear in mind that it is not merely, or at least should not be treated as, a programme of temporary unemployment relief. In the programme is implicit the view of the development of the economy in general, and rural economy in particular, according to which man, in the best sense of the phrase, is to be taken truly as a source and measure of value, production has to be organised for use and not profit, the producer has, through his work, not merely to provide commodities for the community, but also grow through it and express himself in it through decentralised initiative, ownership, control and concentration of economic power – puplic and private – is to be avoided or ended; power and technique are to be used to the utmost but without impairing

*In the body of this article **A. C. P.** is used for **Ambar Charkha Programme.**

or undermining dignity or meaning of life and development has to be controlled and steered not according to the price indices, but according to the needs of the community and agreed social objectives. This is the ultimate objective; but if the A. C. P. is to be taken as a serious contribution to the development and transformation of the economy, it has to conform to these objectives and have in itself the promise and potentiality of paving the way for a fully developed decentralised economy Otherwise it in effect would amouut to a shrewd move in political strategy and not a straightforward social project.

The Programme

The A. C. P., now in the process of implementation, has been adopted avowedly on an experimental basis, is subject to review and, taken as a whole, is not likely to make extensive changes in the basis or working of the economy. To the tentative character of the Programme there can be no serious objection, for the results of the operation of the Pilot Scheme on the basis of which the Ambar Charkha (Khera) Committee made its recommendations were not conclusive and did point clearly to the need for further experience of spinning on Ambar Charkha and imparting of greater skill and practice to the workers on the spinning set. The expected average output of 8 hanks of yarn per person for eight hours' day was not attained in practice. Yarn was not even, wastage of yarn was high and could be reduced. It was not certain how far the weavers would take to Ambar yarn without resistance and with it weave cloth of comparable quality. The organisation for carrying out the programme was not available, had to be created and brought to the level of efficiency at which it could manufacture and distribute the Ambar Charkhas at initial stages and its metallic parts when decentralized programme of A.C.* had become common, provide and distribute cotton, collect yarn, make it available to weavers and market their cloth for them at ecomic prices and provide the personnel for training the carpenters, the spinners and the organizers. It was not clear at what rate subsidy would have to be granted in order that cloth made out of Amber yarn might sell at competitive prices and its payment *at least* at the rate of annas four per yard was recommended on a provisional basis. Organisation being of crucial importance for the success of the A. C. P. the Khera Committee rightly stressed the urgent need for building it up with care with a view to meeting the requirements of the programme. Introduction of 75,000 Ambar Charkhas in 1956-57 was a practicable programme which, if implemented with zeal and efficiency, could be made a basis for the review of the entire position in December 1956 and its expansion to, say, 2,00,000 Charkhas in 1957-58 could be planned. In view of the need of placing the A. C. P. on a sound basis and the

* "A.C." stands for Ambar Charkha.

practical difficulies inherent in its implementation, it was and is desirable to proceed with due caution and demonstrate its success beyond doubt to convince even its many honest but very sceptic critics.

Employment

On the basis of the programme of 75,000 Ambar Charkhas in the first year of the Plan, it is estimated that cloth production would amount to 50 million yards which, it is expected, would create employment for 1,50,000 whole--time spinners and 30,000 weavers and their assistants and 3,600 carpenters and instructors; and if the programme is found to have produced good results, it would, within the framework of the textile policy of the Government of India, under which 300 million yards have been assigned to Ambar cloth in the fifth year of the plan, provide employment for 8,00,000 spinners, 1,80,000 weavers and their assistants and about 21,000 instructors and carpenters etc.—in all, broadly speaking, for about 10,00,000 workers–and, on an optimistic assumption, the spinners would earn a wage of annas 12 per day and the weavers from Rs. 1-8 0 to Rs. 2/- per day. In the first year, only 56,000 charkhas would be in production and 19,000 would be used for the training institutions; but assuming that the production of 300 million yards would be achieved in practice as a result of the development of the programme, additional employment would be created for 10,00,000 workers when the programme is in full operation, granting that actual experience of its working justifies its expansion to the target level. There is unassigned provision of 150 million yards which could be allocated to the Ambar programme, but owing to the increase in the production of cloth by automatic and power looms, it is very unlikely that this extra margin for expansion would be available for the Ambar programme; even if it is, the the potential increase in employment would ba 15,00,000 workers and total production of cloth 450 million yards. In the Khadi Board Programme it was, on the basis of the estimated increase in production of 1,500 million yards of cloth, expected that it would create employment for 3.6 million spinners and 8,33,000 weavers and their families. On the basis of the Khera Committee calculations also employment potential of the A. C. P. would be 5 million workers which is higher than the Khadi Board estimate, if it can contribute 1,500 million yards of cloth as it was expected to – on the underlying assumption of the Karve Committee.

Cost Of The Programme

The total cost of the A. C. P. in 1956-57 is estimated to be Rs. 3.07 crores in grants and Rs. 4.59 crores in loans; and if 300 million yards target is achieved it would be Rs. 18.4 crores in grants and 27.4 crores in loans in 1960-61. The total cost of the programme would, of course, depend upon the rate of its expansion. According to the Khadi

Board estimates, the increase of the national output by 1,500 million yards of Ambar cloth was estimated to cost Rs. 147.74 crores in grants and Rs. 62.40 crores in loans, i. e. Rs. 210.14 crores in all. The curtailment of the programme to one fifth of the original proposal, even if it can be carried out in full, is not merely a quantitative change. It implies a lack of confidence in the future of Ambar Charkha and all it stands for. Scaling down of targets means really the denial of the Ambar Charkha being able to become a major factor in the production and supply of cotton cloth in the country. Licensing of 2.1 million additional spindles and the proposed installation of 14,600 automatic looms and 35,000 power looms is the result of official thinking being rooted in the view that production matters more than employ- ment and the A. C. P. is in fact a backward-looking undertaking, and though it may have a limited and subordinate place in the transitional stage of our economic development, it can and should have no place in the ultimate shape of things to come, i. e. our national eco nomy has eventually to incorporate and use to the utmost the most advanc ed modern technique of power production on a mass scale, and decentralization of production envisaged in the A. C. P. and the co-related projects are merely incidents of transition and not a cardinal feature of the programme of the economic development of the country.

Divided Allegiance

The Government is really in a state of divided allegiance to conflicting standpoints and its faith in decentralised economy on the Gandhian premises is being progressively weakened for, according to our Prime Minister "in the nation's grand strategy of war against poverty," the country has to switch over so higher techniques both for increasing wealth and bare survival in this difficult and not very gentle world, which does not care too much for the weak". This is really not only a plea for rapid development of heavy industries, but also a call to change over to 'higher technique' though, again in the words of the Prime Minister, "a balance has to be struck between heavy industry and cottage industry in the *transitional* phase'.

The Real Question

This is the crux of the matter. Is the A.C.P. a part of the transitional phase in our transition to highly mechanized, automatized, centralised mass production and socialist economy, with its ultimate goal of production for use through small production units in which the producer, either as an individual or a member of the co-operative, largely retains the autonomy of decision and direction in production ? In either case, we have to proceed empirically and both large and small units—i.e. centralized and decentralized production have to co-exist; but progressively centralization or decentraltization has to be as completely

realized as possible, i.e., even in a decentralized economy production in certain sectors like steel, ships, heavy machinery etc., would have to be organised on a large scale with the full benefit of mass production. This question of the destination of development has not been squarely faced and clearly answered by our policy makers and the result is confusion in thought and practice and contradiction in policy decisions, e. g., in the textile policy now in operation. At present our economic policy has to be 'employment' policy and has to be employment 'oriented'. Otherwise the masses in the villages who are unemployed will continue to remain in a state of economic distress and the enormous productive power which they represent, would be completely wasted. Even for that, 20 to 30 years–if not longer – we have to decentralise production and use what are called labour-intensive methods.

Inescapable

That means that rural economy has to be so organised that small units of production dove-tail into it and the entire man-power, through whole-time and subsidiary industries, is fully and productively utilized. This is, for a country like India with heavy and unavoidably increasing pressure of population, an inescapable necessity. All students of population realise that, even if contraception on a large scale is actually adopted, the pressure of population, owing to the death-rate falling more rapidly, than the birth-rate, is bound to increase in the next two or three decades and our economic policy has to be clearly adjusted to it. This is a compelling reason in favour of decentralized economy and indicates how essential it is that through the latter the available man-power should be fully utilised. What will happen after three or more decades when and if we can stabilize our population at a desired level, and whether we will then be able to utilise our labour through large-scale mechanized mass production cannot but now be a speculation of hardly any practical importance. At present there is no other way of productive utitization of our man-power and the logic of it has to be clearly understood and acted upon. The necessity is in fact recognised and conceded in the formulation of the 2nd Five Year Plan, but is not consistantly or coherently worked out in the development schemes.

Gandhian view

Apart from this imperative consideration, has decentralization any social merit of its own ? Is decentralized production desirable from social standpoint even if excessive population pressure and, therefore, very low man-land ratio does not make it practically unavoidable ? According to the Gandhian premises, answer to this question is definitely in the affirmative. Decentralization is, from this standpoint, as necessary in the Soviet Union, Brazil, Canada and Australia, the underpopulated countries–as in India, China,

Indonesia and Egypt, the over-populated countries. Decentralization is necessary because, without it concentration of power cannot be prevented, distortion of the basic condition of moral life, to use the words of Dr. Radhakrishnan, cannot be avoided, dignity and autonomy of personality cannot be preserved and man must become a cog in the machine instead of an autonomous agent of production. Through centralized mechanized mass production degradation of human life, according to the implication of this view, is unavoidable and has to be prevented by making decentralized small-scale production the norm and centralized mass prodution the exception rather than the other way about. If the issue is framed in this way, the conclusion is open to question from the socialist standpoint.

Socialist Standpoint

In a socialist economy, by the very premises of socialist faith, human needs of labour can and should be safe-guarded even in a highly industrialized economy in which mechanized mass production is the rule. There need be no exploitation of labour, conditions of work and living can be placed above reproach and needs of health and personality can be fully provided for through sound town-planning, and sound housing policy, guarantee of living wage and social security and provision of adequate leisure and its creative use. Concentration of power in a socialist society has to be remedied by political and not technological measures, i.e., by having large number of nueclii of political power in basic units like local selfgoverning bodies, widely diffused professional organisation with clearly understood public functions, trade unions charged more with administrative than protective or combative functions and, of course, an alert, vigilant and responsible electorate who can call the political leaders to account instead of being merely deluded by them. In a socialist economy in which all centres of private economic power have been taken over by public bodies – the State or other organs of the community, what are called countervailing *focii* of power can be created and used to limit and even counteract the omnipotence of the State.

The Root Cause

Tudustrialisation in itself is, from this standpoint, not the root cause of concentration of power or denial of the needs of personality, and if these evils exist, as they undoubtedly do, they are accounted for by undue reliance upon nationalization of industry, trade and agriculture as a chief instrument of organic growth of the community or absence of built-in social safeguards in the economy against the abuse of power. As mechanized mass production in heavy industries and modern communications is inevitable, and integration of economic life, i. e., inter--dependence of different parts of the country and of each country on the rest of the world through diversification of economic life,

specializatien in producrion, growth of trade and vital importance of exchange to every economy, is also unavoidable, decentralization in production by making small units of production the rule in consumers goods industries cannot provide against the concentration of power and its abuse. The conclusion of this line of thought, as stated above, is that partial economic decentralization by itself is no remedy of the evil of the State acquiring excessive power and using it to the detriment of the best interests of the people.

The Criterion

The above view is, on certain assumptions valid, but it can be made the basis of operative principles of economy when it very largely incorporated in it socialist concepts and norms or is in a process of rapid socialist transformation, and political mechanism, the like of which nowhere exists at present, is an integral part thereof. The issues, which are inherent in the A. C. P. have, however, to be considered in the context of the existing conditions in India and not that of an ideal socialist society in the making. In India we have made socialism our goal, but have to reckon with limitations of a parliamentary system which is functioning under very difficult conditions and is far from stable, of an administrative system which is completely unsuited to the needs of revolutionary change and of very considerable concentration of private economic power which is fighting a vigorous rear-guard action to obstruct the growth of a socialist society in this country. Since we have enormous idle man-power which can be productively utilized only if decentralized production through labour-intensive methods is very widely adopted and made a success, from practical standpoint we have to develop village and small industries and make them a cardinal feature of our economy and use them to introduce and realize social changes through which the objects of equality, freedom and fellowship—i.e., substance of socialism—can be achieved. Decentralisation of production itself will not bring about these changes, its social import will have to be made its animating purpose in all measures adopted to develop it and it will have to be integrated with the creative development of our economy and polity as a whole.

The cottage and small industries have existed in this country for thousands of years and yet we never have had even a near-socialist economy. These industries have now to be a part of the development of an entirely new social system and not a revival of any lost glory; and owing to the fact that they belong to the future and the end which it prescribes and renders obligatory, we have to take into account the needs of an expanding socialist economy and also all the technological advance which has taken place, is taking place or is on the horizon.

Techniques

Any intention to freeze technique

has to be ruled out as completely irrelevant to the objectives in view. We are on the threshold of a great technological revolution. Atomic energy and automation are, even for the most highly developed industrial countries, posing problems of far-reaching social re-adjustments and call for social regulation of technological changes in the interest of the community without which, it is obvious, even these countries will suffer from very grievous strains. Atomic energy and automation will come to India as they will come to the rest of the world and require effective social action if they are to be our good servants and not terrible monsters which they might well become. These tremendous developments will have to be assimilated into the social fabric of every country and very firm co-operation on international level, as is being more and more widely realised, will have to be achieved if they are to be used for the benefit of mankind and not its undoing. India, as our Prime Minister said a few days ago in his speech in the Rajya Sabha, is practically starting from scratch and can and should use all the advances which have been or are to be made with a clear understanding of what they imply in terms of increased output and social consequences. No country—and certainly not a country like ours—can let these technological developments come unbidden and cause all the havoc which they are potentially capable of.

A First Step

In plain werds, technique, old and new, has to be servant of man and not his master; and in India we have to utilise it with full knowledge of the good and the harm which it can do to our economy which has more and more to embody and realize its avowed socialist purpose. The A.C.P. has to be a step in a whole complex of steps for socialist transformation of the country. That has to be its real meaning and importance for our future. The Ambar Charkha itself is being adopted as a great technological improvement on the old Charkha, and it has, as is very clearly stated by the Ambar Charkha Committee, to go through a process of continuous change and improvement if it is to fulfil its purposes, which, to repeat, is to use technology as a means of utilisation of our massive man-power which, at present, is being wasted and is, as such, causing untold misery and impedes purposive transformation of our economy on socialist lines. No one who understands this should see in this programme an act of regression or romantic idealization of our old handicrafts.

The Khera Prescriptions

If this purpose is to be realised in fact, in policy-making it has to be clearly understood and applied with complete honesty and real earnestness. Division and conflicts so obviously indicated by the recently announced textile policy of the Government of India would only involve waste and misapplication of our limited resources and retard the development of the country. This object can be achieved

by appreciating fully the implications of three recommendations of the Ambar Charkha Committee which are of fundamental importance for the success of the A. C. P. These recommendations in the words of the Committee are :

1. "The Ambar project comprising both spinning and weaving, should be so designed, organised and implemented as to be related directly to the development and transformation of village economy (Recommendation No. 10.)

2. The Ambar project should be incorporated with the progressive realisation of regional self-sufficiency (Recommendation 11), and

3. The objective should be stated and established of attaining a point where a subsidy will no longer be necessary for decentralised spinning and weaving (Recommendation No. 38) and 'Ambar cloth should take a natural and not a special place among the various kinds of cloth to be bought and sold" (Recommendation No. 17)

These recommendations are, it may be repeated, of fundamental importance and unless they are given effect to fully, the prospect of making the Ambar project a success would be very seriously impaired. Implications of these recommendations may be very briefly commented upon, and they have, as pointed out above, to be made the basis of actual implementation of the programme in all earnestness and sincerity.

Rural Development

Development and transformation of village economy is a subject on which there is a very general agreement of opinion in this country. The village is to be treated as an organic whole for development, its entire human and material resources have to be fully utilized, the village community has to be made largely self-governing and self-regulating and has to develop local initiative, leadership and geniune enthusiasm of the people, farming practice has to be greatly improved by application of advanced knowledge and experience from everywhere. Co-operative farming is to be the rule and developed very rapidly, marketing has to become a co-operative function and made the starting point of building up an all-inclusive co-opetive framework in which the village economy will move and have its being and handicrafts-all village crafts-have to be reorganised and developed as the essential means of utilization of human resources of the village. All these changes have to be introduced in order to elevate and enrich the life of the people —to raise their standard of living, of culture and individual and corporate activity to a much higher level and make the villages in India the foundation, the pillar and the vehicle of a rapidly developing socialist society. The State has to provide the means, the guiding personnel and all-out assistance in order that the village may come to its own and become the centre and source of new life for the nation.

The New Village

The new village in India cannot live into itself. It has to be an integral part of the national economy and through it of the entire world. The old ideal of a self-centred and almost completely isolated village— the old little republic-is, it is clear, completely obsolete; but the village in India can play its role in the new world in the making only if it finds its centre of specific social gravity and in its organization and spirit expresses a social purpose of its own, serves the needs of the national economy as a whole and responds and contributes to the fulfilments of the new urges of the country and mankind. The A.C.P. has to be related to the development and transformation of the village economy with this social approach and more and more realize its increasing social purpose. If this project is to be integrated with and mainly carried out through the Community Project Administration as the Ambar Charkha Committee has recommended it should be, it can be done only on the assumption that the latter will itself rise to a much higher level of social understanding and achievement and represent nothing but a genuine and all-out effort of the people to discover themselves and bring about a real revolutionary change in their live and that of the country with such assistance as the State can readily give in realizing this object. Through the Intensive Areas of the Khadi Board, the Pilot Projects of the Community Project Administration, the total transformation units of the Sarvodaya Sangh and whole-hearted and intelligent co-operation of all parties and persons of goodwill on as completely a non-partizan basis as possible, the development of village economy can be promoted and realized on these lines. An Action Committee, which will function on behalf of the overlapping Boards which have been constituted is needed; but that is by no means enough. The Co-opertive Farming, Warehouse and Marketing Projects have to be also brought into the picture and all of them have to be carried out in *the same selected areas of intensive* development at the outset and extent of their operation has to be enlarged with the utmost speed and efficiency. Development on these lines can, it need not be specifically stated, be realized in an agrarian economy in which disparities in land holdings have been greately reduced, the rentier class, in economic and not merely legal sense of the word has been as completely eliminated as possibe, land in fact, and not only in theory, belongs to the tiller and the village community acquires and practises a vivid sense of organic unity for the good of each and all. If these efforts are disjointed and put forth in the different areas without any unity of purpose and action, not only the A. C. P. would fail, but all other projects also would involve dissipation of resources and effort and create an all-enveloping air of futility and inconclusiveness. This is, to my mind, the meaning of the Recommendation No. 10 of the Khera Committee and

will, I hope, be properly and fully appreciated.

Self-Sufficiency

The second recommendation referred to above (i.e. No. 11) relates to the incorporation of the A.C.P. in the progressive realization of regional self-sufficiency. The whole concept of self-sufficiency which has found such an important place in the Gandhian ideology and the realization of which is still an aspiration and endeavour of all constructive workers, needs, in my opinion, to be thought out with care and applied, if at all, with a clear-sighted purpose. Self-sufficiency cannot mean that a group of villages or a small area, much less each village itself, has to develop a closed economy and have no exchange transaction with other villages, areas, country or the world. That is an unattainable object in the existing conditions even for countries, what to say of individual villages or groups of villages. Autarchy, as a practical or desirable object of effort and organization is dead completely; and exchange on a wide scale on a co-operative basis, instead of the present basis of economic penetration, exploitation and domination, has to be deliberately promoted. Trade, — inter - national, inter-State and inter-regional has to be exchange of real surpluses of countries, States and regions-and inter-change of goods merely in response to the pressure of market forces without any reference to the needs, real advantages and resources, actual and potential, of the people has to be planned out and re-placed by planned trade on the basis of real and reciprocal needs and benefits of the different people and areas. Trade is the distributive function and has to be undertaken as a means, not of taking advantage of the difference of prices and enriching the intermediaries, but of utilizing productive resources to the utmost and to the greatest mutual benefit of the parties to exchange, differences of prices being an undependable index and measure of needs and resources. This is to be done on a world-wide basis in the interest of real economic co-operation and peace; and this principle has also to be fully applied within every country for the development of inter-regional trade.

Nebulous

The whole concept of regionalism in the Planning Commission report is nebulous and inchoate and has had practically no place in the formulation of the Secend Five Year Plan: but it is necessary to apply our minds to this concept and work it with care for the execution of development plans and primarily for those of the village economy. A rational approach to planned exchange would have implicit in it a rational concept of self-sufficiency. Each group-call it sub-region if necessary-will assess its own needs, man-power, resources and potentilities, utilize them fully, first for satisfying its own needs-but also in conformity with the programme of planned intra-natio-

nal and inter-national trade and only such exchange of goods would be permitted and promoted which is in the interest of the people of the sub-region and the country as a whole. All unnecessary and avoidable transport of goods would be eliminated, cost of distribution of commodities very materially reduced and real cost, as ditinguished from monetary cost, and real benefit of which utilization of the available man-power has to be a very essential element, made the operative principle of all exchange. It is not possible for me to develop these points in any detail: but progressive realization of regional, including sub-regional, self-sufficiency, is of the utmost importance in rational development of the country and the A. C. P. has to be incorporated in it. Thus understood, self-sufficiency ceases to be an Arcadian dream or Utopia and acquires a social content of great significance and importance. This incorporation is a necessary condition of the success of the Ambar project and has to be fully carried out.

Subsidy and Price

This, by natural transition, leads to the third recommendation (No. 38 and No. 17 — these two recommendations being really two halves of the same recommendation.) For fifty million yards of Ambar cloth, subsidy of Rs. 1.60 crores has been provided for and it is not yet known whether this amount will be adequate for the purpose in view-i.e. to make Ambar cloth competitive with mill-yarn handloom and mill-made cloth. If even the assigned target of 300 million yards of Ambar cloth is réalized in the 5th year of the Second Plan, which as stated before, falls very much short of the needs of the economy, the subsidy would amount to Rs. 9.6 crores, besides loans of Rs. 27.6 crores and Rs. 12.6 crores for the training expenditure and working capital. These are rough estimates and are likely to be exceeded; but even taking them as they are, annual subsidy of Rs. [illegible].6 crores and Rs. 40 crores of other expenditure for giving employment to one million workers is very heavy cost and can be justified only if it is regarded as a transition to a solvent decentralized cloth production programme. We have, hower, to think not in terms of 300 million yards of Ambar cloth, but of, say, 3000 million yards in the third plan period, and employment of 10 million workers in its production. Its cost on the above basis in subsidy alone would amount to 96 crores in one year, and, as the production increases, the cost would also proportionately increase. The country cannot possibly commit itself to a programme of heavy mounting costs on a long-range A. C. P. or its lineal successor. Subsidy can be granted only for a relatively short period and has to be dispensed with by making the programme internally solvent and capable of developing its own self-sustaining capacity. "No subsidy" has, therefore, as pointed out by the Khera Committee, to be the distant goal of the Ambar project and similar dispensations which will follow. It is true that the Ambar Charkha and the looms would be

greatly improved if the Research and development programme is fully carried out; but raising the level of wages of spinners, weavers and carpenters which, in the present project, are unduly low, would have to be the first charge on any increase in income which higher productivity of workers may bring with it and, therefore, fall in the unit cost and, therefore, sale price of cloth is not likely to keep pace with the improvement of technique and productivity. Apart, however, from this vital consideration, when technical improvements in Ambar cloth are being carried out and, therefore, production cost reduced, the cost of mill-yarn handloom cloth and mill-made cloth will not remain constant. That also will, through technical progress and more efficient organization, be progressively reduced, possibly more rapidly than of Ambar cloth and it would not become less difficult for the latter to attain and maintain its competitive position in the market and "to take a natural and not a special place in the various kinds of cloth to be bought and sold." The crucial question, therefore, is as to how the Ambar project is to achieve the position of equality in relation to cloth produced by mills and powerlooms. This question has to be answered for the soundness of the whole project, as a long-range programme, would depend upon this answer being convincing and conclusive : and Ambar project as a short-range programme has no meaning and utility.

A Common Price

The problem is difficult, but is not insoluble if it is set in the context of rational self-sufficiency and the necessary measures are taken to adopt an appropriate programme of production, distribution and price fixation. The view that a common production programme for large-scale and village industries is needed has already been adopted by the Government and the Planning Commission and partially acted upon through reservation, cesses and subsidies. It is, however, necessary to rationalise it further on the basis of the assessed needs of the country, the State, the regions and the sub-regions and to allocate to all sections of spinning and weaving industry the quantities, varieties and areas and distribute all cloth through public and approved agencies—in rural areas mostly through the co-operatives. Cloth of different varieties should be standardised and each section of industry should produce according to specification prescribed by the regulating and distributing authorities and in distribution local demand should, as far as possible, be met from local production and supply and standardised cloth of extra-local origin be *sold at the same price* as local cloth, and there should be no competition between Ambar cloth, mill yarn hand-loom cloth and mill-made cloth owing to the difference of sale price. Each production unit should have a regulated ex-factory price and it should be fixed after examination of cost and allow

for fair wages, cost of raw materials, interest on investement, depreciation allowance and a fair return for management and risk which should be reduced, as far as possible, by providing raw materials and buying the products at control prices. The acquisition cost of cloth from all sources should be pooled and also transportation and distribution costs, cloth should be sold at uniform prices, if not all over the country, at least in each region and there should be no need to levy cesses on and pay subsidies to the producers.

Example of Steel

This policy of price fixation is already being applied to steel, cement and fertilizer and is capable wide extension in a socialist society; and there is implicit in it the need for vigilant supervision of the methods of production, for action against costs being inflated or even stereotyped and for provision of incentives for continuous reduction of costs through improvement of technique, efficiency of organization and increase in labour productivity. Fixation of 'retention price', for each production unit, pooling of costs, formation of equalization fund and building up of reserves to ensure solvency of the programme are essentially rational methods of price-regulation and fixation and through them a rational price structure for the economy as a whole can be established. This can and should be applied to all commodities, e.g., leather, matches, oil hand-pounded rice and, of course, cloth in regard to which a programme of decentralized production has been drawn up in the Second Five Year Plan. In effect this also means indirect payment of subsidies to high-cost village industries, but is counter-balanced by major social gain; and, by progressive reduction of cost through planned application of higher technique as a continuous process and gearing up of the organization, this burden can and should be reduced. Decentralized production in this programme should grow at the cost of centralized production, but the former should be dynamic process and, through carefully devised measures, it should develop an internal impetus of its own through which it can rise to ever higher level of technical achievement. Standardization, pooling of costs and prices and sale at uniform prices are the features of a socialist price structure and through it decentralized production can be organized, developed and made a major factor in the working of the national economy. Subject to the over-riding consideration that introduction of new technique should not cause unemployment and, therefore, social distress, there can be no limit to the application of higher technique in decentralized production and, therefore, increasing reduction of costs and price.

Wanted Arduous Efforts

The A.C.P. is still at a very initial stage of development, an organization

adequate for carrying out the programme has still to be built up, its significance understood and the logic of its implications appreciated by all, including those who ardently believe in its beneficence. Cynicism, born of lack of understanding of the essentials of the programme and indiscriminating support in spite of some of the obvious limitations inherent in the present state of organization, have both to be avoided. The A. C. P. has great possibilities, but they can be realized only by arduous effort, and a highly developed organization has to be created, as stated already, to deal adequately with the problems which still need to be solved. Above all decisions need to be made with clear understanding of what is involved in the programme and have to be carried out with integrity of purpose and honest and adequate endeavour. Its success cannot be guaranteed, but the effort is well worth making and has to be backed by determination both on the part of the people and the Government.

ECONOMIC PROPOSITION

"Khaddar in a sense is purely an economic proposition. A Khaddar organization must be a business concern before everything else. The democratic principle (of party politics), therefore, cannot apply to it. Democracy necessarily means a conflict of will and ideas, involving sometimes a war to the knife between these different ideas. There can be no room for such conflict within a business organization. Imagine parties, groups and the like in a business concern. It must break to pieces under their weight. But a Khadi organization is more than a business concern. It is a philanthropic institution designed to serve demos. Such an institution cannot be goverened by popular fancy. There is no room in it for personal ambition." —Mahatma Gandhi

SPINNING SPINDLE AND THE SPINDLE DRIVE

(*By* : *SATISH CHANDRA DAS GUPTA*)

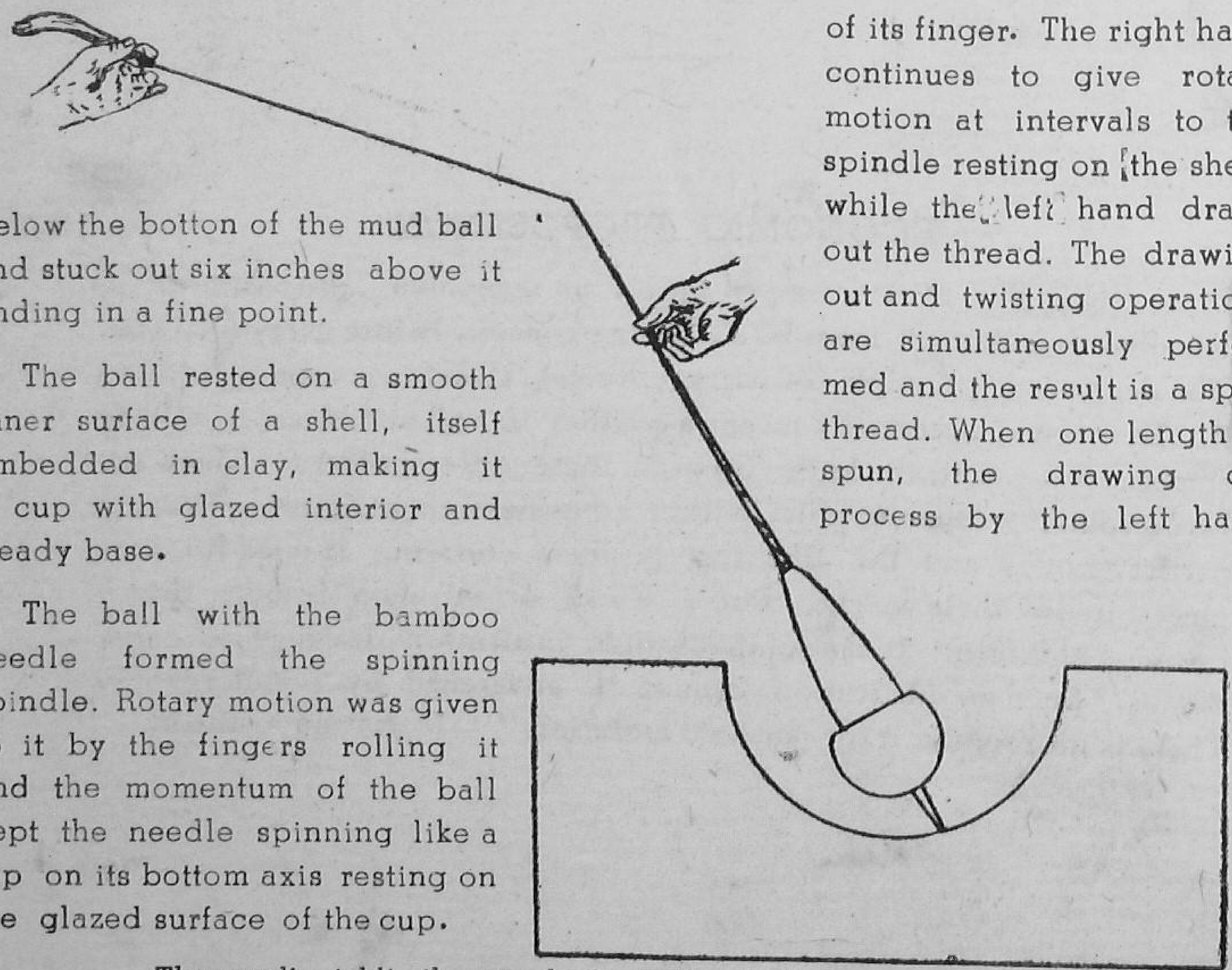
The Takli or the spindle without bearings was the first spinning spindle. The original pattern consisted of solid ball of clay in which was embedded a needle like tissue of bamboo fibre. The bamboo needle protruded a little below the botton of the mud ball and stuck out six inches above it ending in a fine point.

The ball rested on a smooth inner surface of a shell, itself embedded in clay, making it a cup with glazed interior and steady base.

The ball with the bamboo needle formed the spinning spindle. Rotary motion was given to it by the fingers rolling it and the momentum of the ball kept the needle spinning like a top on its bottom axis resting on the glazed surface of the cup.

The spindle, while spinning on its axis, is held in an inclined positton by the right hand which gives the rotary motion and at the same time holds it properly inclined. The left hand draws out the thread from sliver held in the grip of its finger. The right hand continues to give rotary motion at intervals to the spindle resting on the shell, while the left hand draws out the thread. The drawing out and twisting operations are simultaneously performed and the result is a spun thread. When one length is spun, the drawing out process by the left hand

FIGURE 1



The muslin takli, the standard of all spindles-antique or modern.

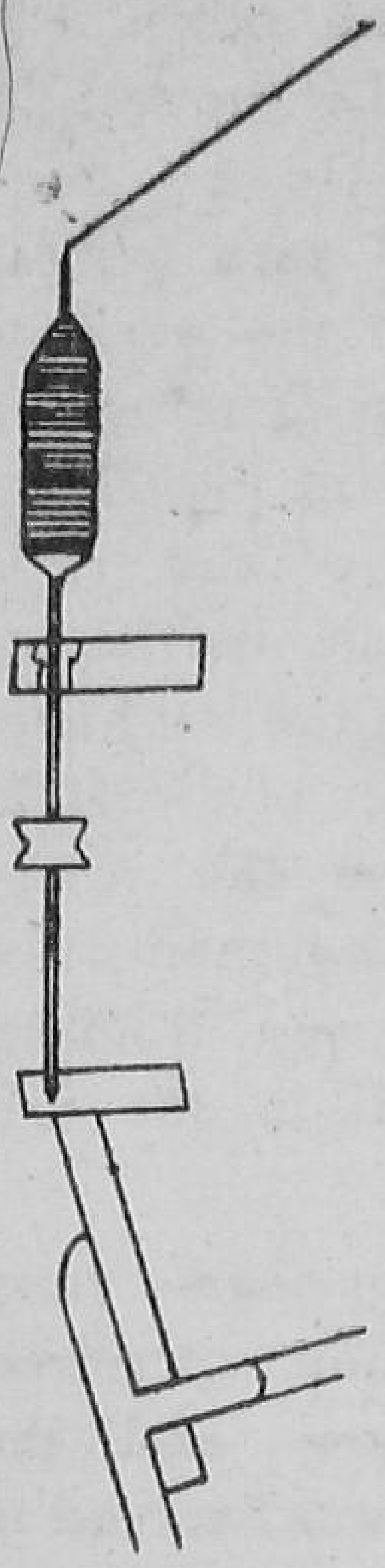
ceases and the right hand by an intermittent rotary motion allows the left hand to wind the spun length on the bare spindle. By repetition of this process the cop is formed.

This motion of the spindle is a perfect one for the purpose. There are no bearings. The end of the spindle rests on a glazad friction-less surface. So delicate is the movement that the finest yarn can be spun on it. In fact, although this is the original spindle, yet it could give fine yarn only and stands unrivalled even today as the best and the simplest spinning device. It has not been equalled by any subsequent inventions in its features of simplicity and fitness to spin fine cob-web yarn.

The pecularity of this spinning arrangement may be said to consist of an arrangement in which the spindle has an "elastic" suspension and the drive also an 'elastic' drive. Suspension is elastic because there are no bearings, the spindleend resting on a smooth cup. The drive is the rolling motion of the fingers and, therefore, 'elastic'.

Elastic suspension and elastic drive are crucial and distinctive features of the primitive muslin takli. This was attempted to be copied as far as possible on all latter evolutions of the spindle either for the charkha or for the spinning frames in mills.

FIGURE 2



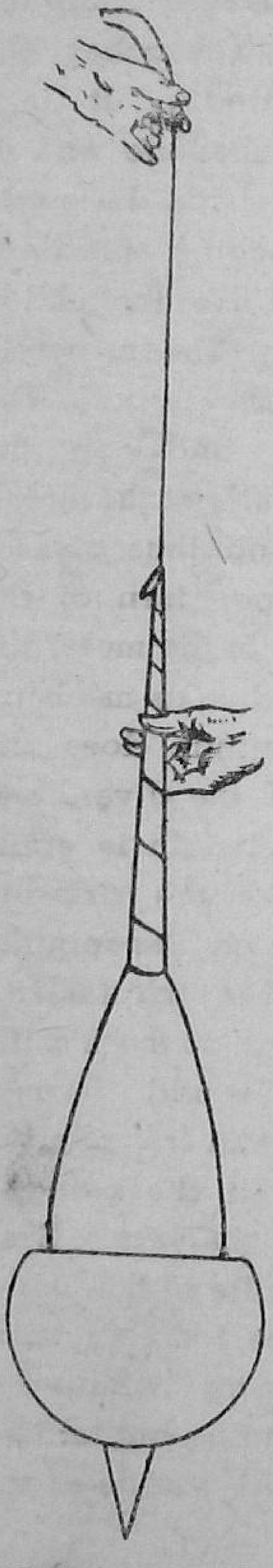
The Mule Spindle

When the machine came to do spinning, it copied the motion of the takli spindle. The 'mule' was the result. Here the spindle approches the takli spindle. It is a crude substitute and is supported on bearings. The machine spindle is inclined like the takli at spinning. The principle is the same in both. The rotating end of the spindle allows the thread to slip and thus gives it a twist per turn of the spindle. In the mule, the left hand or its mechanical substitute does not draw off the sliver, and when a length is spun, the spindle approaches the drawing end and winds the yarn on the spindle. This motion of the hand in the takli is copied to such perfection as the limitations of the machine would permit. There is the same to and fro relative motion of the sliver and the spindle, winding and twisting the yarn. Even today the machine spindle of the 'mule' stands as the best device for fine spinning. The method of 'ring' spinning is simpler than 'mule' spinning but for fine spinning the 'mule' still stands as the better appliance.

The spindle, as it is operated in the takli, is really a device for fine spinning.

Coarse spinning, however, was also necessary. To achieve this a notch, like a hook, was cut at the end of the spindle which allowed the takli to be hung from the yarn without allowing the yarn on the cop to come out. In this pattern, the takli is pulled by the right hand while the sliver is held by the left hand. The fingers of the right hand give the rotary motion and then draw out the thread from the sliver held in the left hand.

FIGURE 3



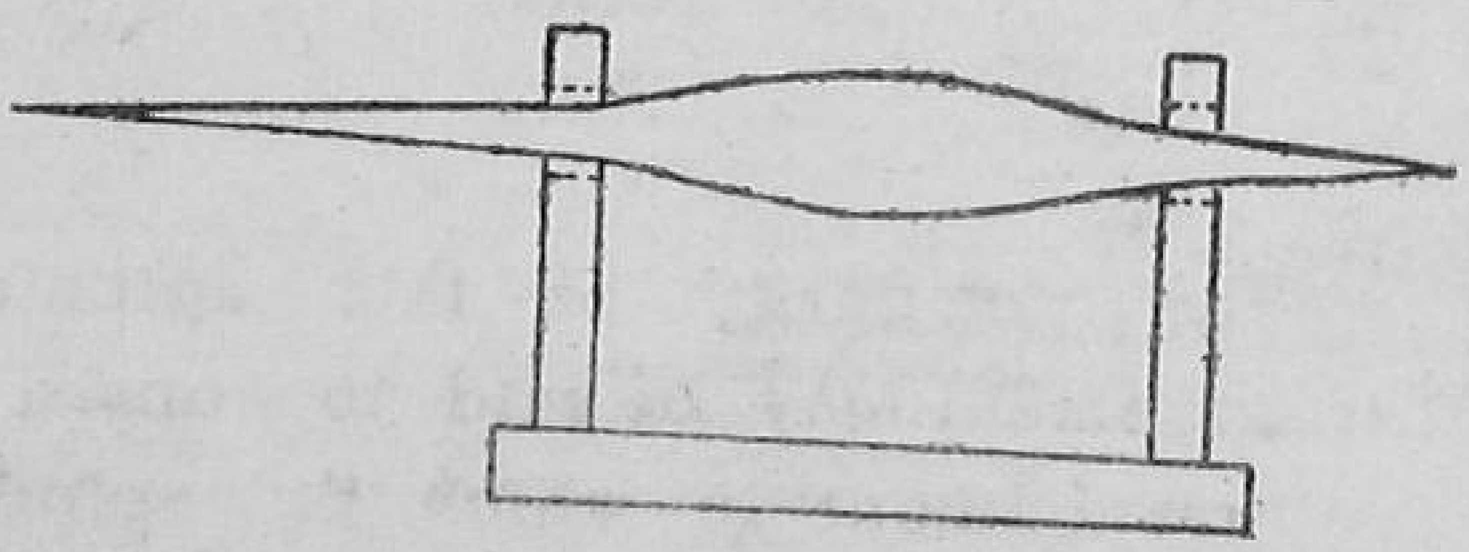
The hooks end of Takli for pulling down yarn.

But, for coarse yarn, the motion appeared to be slow and the charkha was evolved in which a horizontal spindle was rotated by a rope drive connected to a revolving wheel kept in rotation by the motion of the right hand driving the axis of the wheel.

From tha vertical but inclined takli spindle we have now come to the horizontal spindle of the charkha, the spindle had a construction suitable to mechanical needs. The horizontal spindle rested on simple clips, kept in position by the *mala* or string belt. Herein the fixed bearings were introduced for the first time for the spindle.

The spindle was a 14 or 18 inch piece of rod bulged at the middle to receive the *mala* and tapered at the ends of fine points. The bulging at the middle was a mechanical necessity because of the introduction of the bearings. The diameter of the spindle at the bearing must be less than the diameter at the point of drive in order to allow the spindle to move without slipping. The bearings were necessarily kept apart, about 10 inches, to allow the bulge in the middle to tone down to a tapering end.

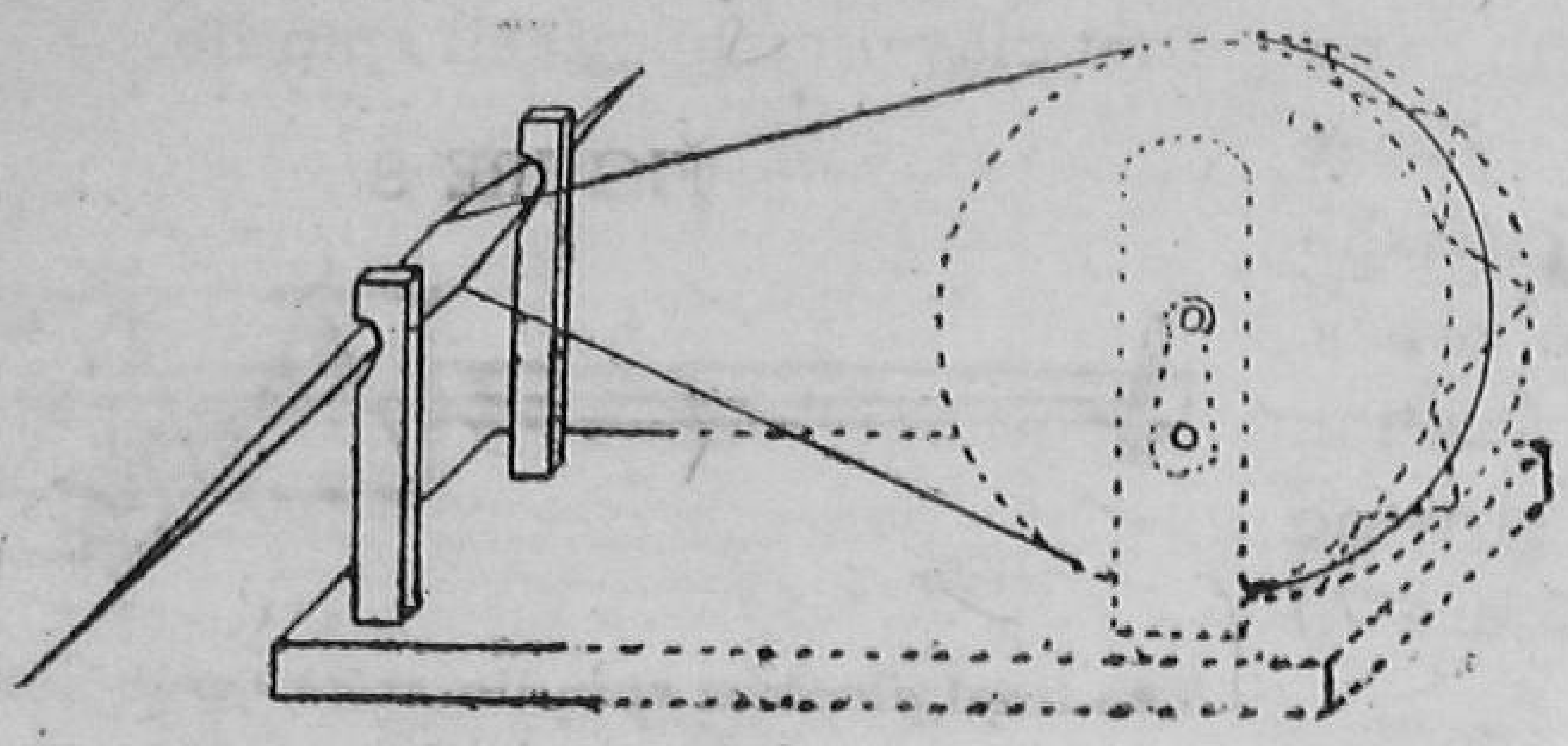
FIGURE 4



The bulged-middle spindle : final evolution in the old Charkha.

The spindle with a bulged middle point and two bearings is the second stage in its evolution. In the charkha some elasticity was possible at the suspension, but in a machine-driven spindle it was difficult to give the desired flexibility. In the primitive charkha the spindle rested on pads against vertical posts and these pads allowed the elasticity to the spindle. But in the drive there was not the elasticity which was a marked departure from the ideal features of the first Takli.

FIGURE 5



The antique charkha with open suspension and bulged-middle suspension.

The adoption of the tapering spindle with a sloping bulge at the middle is an ancient invention of great mechanical and scientific consequence. It is a well recognised fact that when a belt passes over a pulley of a conical shape the tendency of the belt is to travel automatically up towards the larger diameter. Advantage had been taken of this fact in shaping this spindle. In this spindle, the *mala* or the belt is bound to travel over the middle or the highest point of the bulge. If the *mala* is pushed by other forces out of the middle or the highest position, it will, with the revolution of the spindle, come back to occupy the highest point of the bulge. In this way the *mala* cannot be in a dislodged position.

Even when such a spindle is set in an incline with the horizon or base, the spindle has no tendency to travel up because the *mala* will make the spindle retain the middle position. It is in this way what a flanged pulley or wharf accomplished in a spindle is accomplished by the introduction of the bulge at the middle.

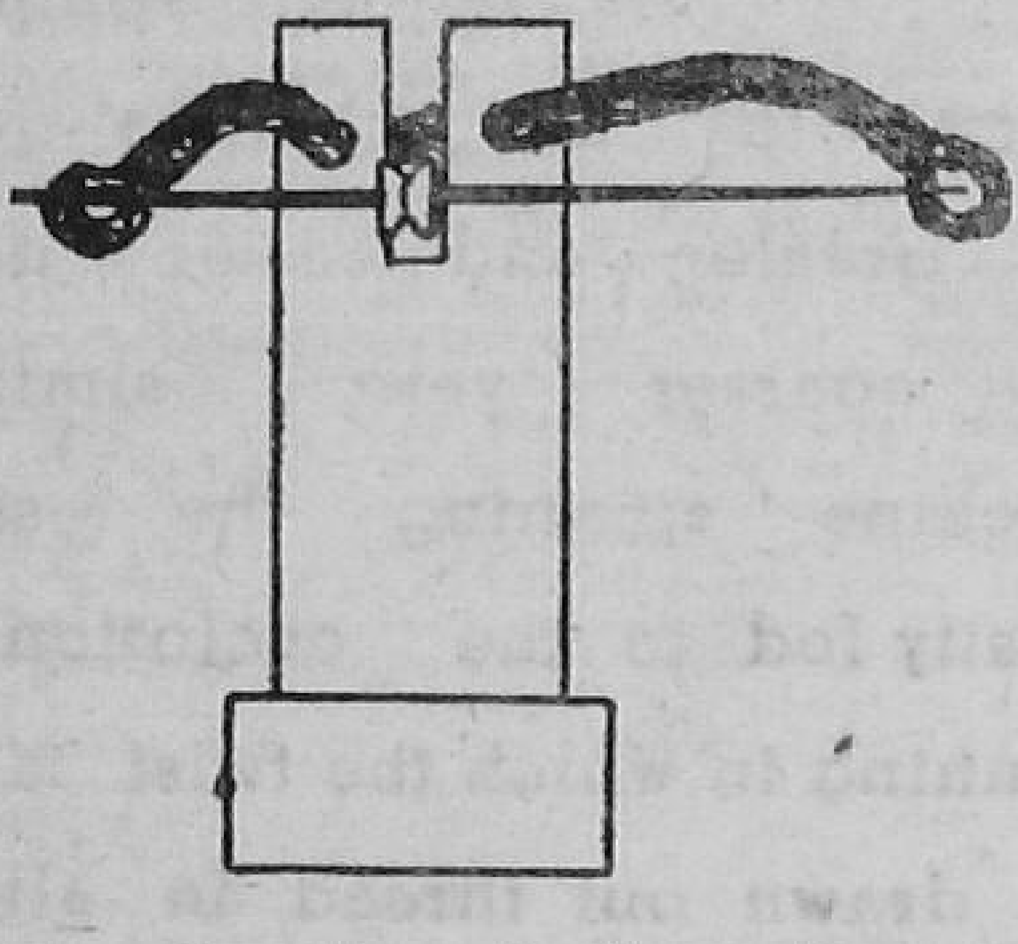
The Ring-Spinning Spindle.

As the takli spinning gave place to the charkha spinning for greater and easier production of coarser yarn, similarly in machine spinning the same necessity led to the evolution of ring spinning in which the twist is given to the drawn out thread in altogether a different manner.

In the charkha of the old type we have seen that the spindle is supported on bearings placed a long distance apart. The spindle has a bulge in the middle. In recent years, in order to make spindle and bearings short, there was an attempt to put the supports nearer and have metal bearings while the bulge in the middle was replaced by a pulley. It was found that the metal begrings wore away in no time giving a ratling sound when the spindle rotated and also the rattle and shake at the bearings made the yarn ununiform. It was replaced by stages. The pulley was

allowed to remain, but the metal bearings were done away with and replaced by other devices. The climax came with the suspension of the charkha spindle at the bearing points on ropes. The spindle here is kept in a position by the pull of the *mala* or driving string as in the old Charkha. (Figure 7.)

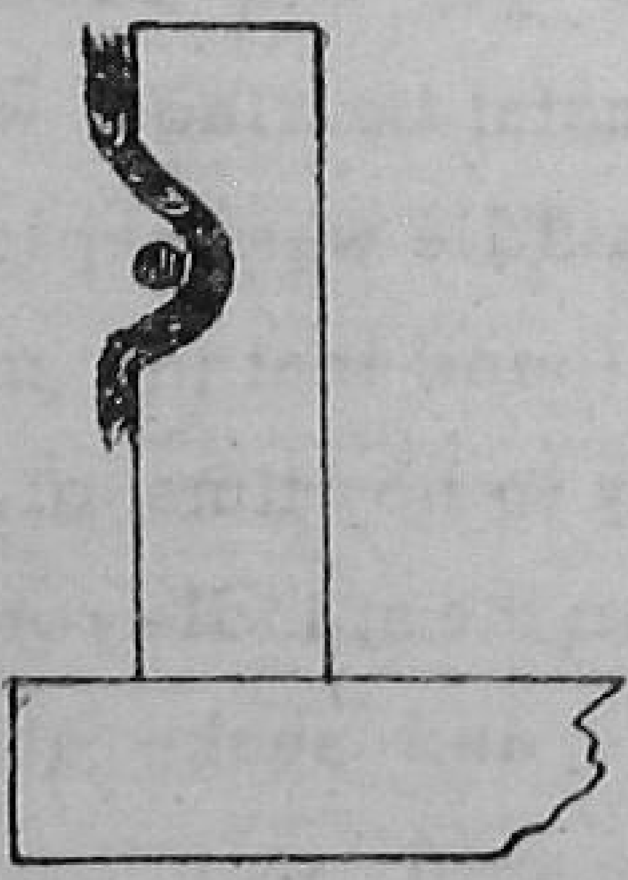
FIGURE 6



The Charkha spindle resting on closed rope knot bearing: A stage in evolution.

The attempt to introduce metal bea-nings failed and a stub spindle with pulley was introduced, resting on pad-ding in the period of evolution introduc-ed with the revival of hand-spinning.

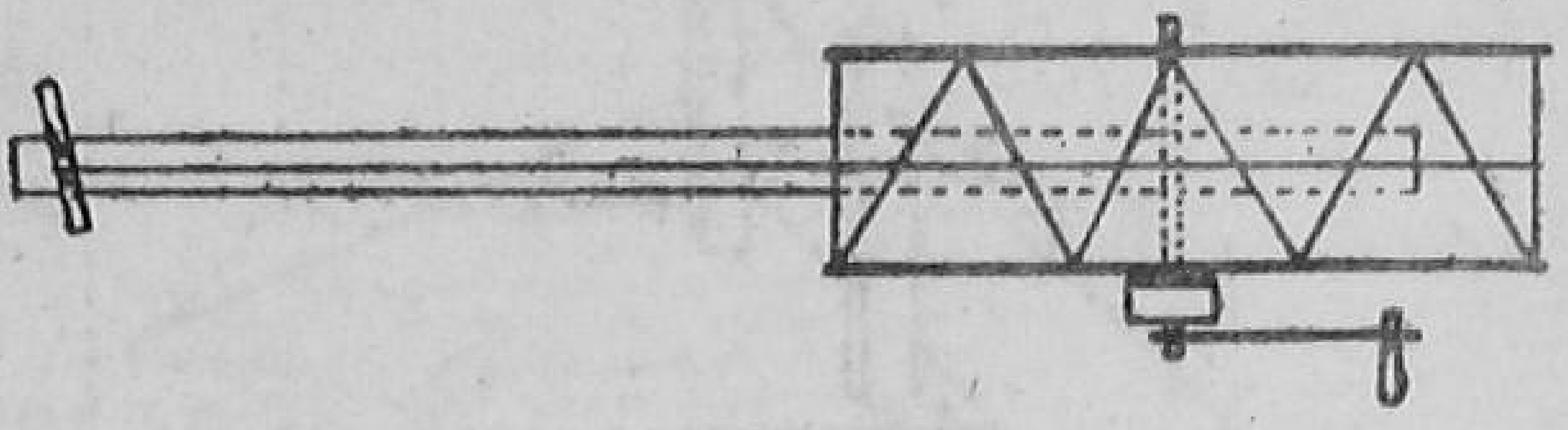
FIGURE 7



Spindle in free suspension.

The perfection of the suspension of the spindle and elasticity of the bearings is attain-ed in the pattern known as the bam-boo charkha. Here the spindle and its suspension reaches a scientific accuracy almost equal to that of the first clay-bamboo takli spindle.

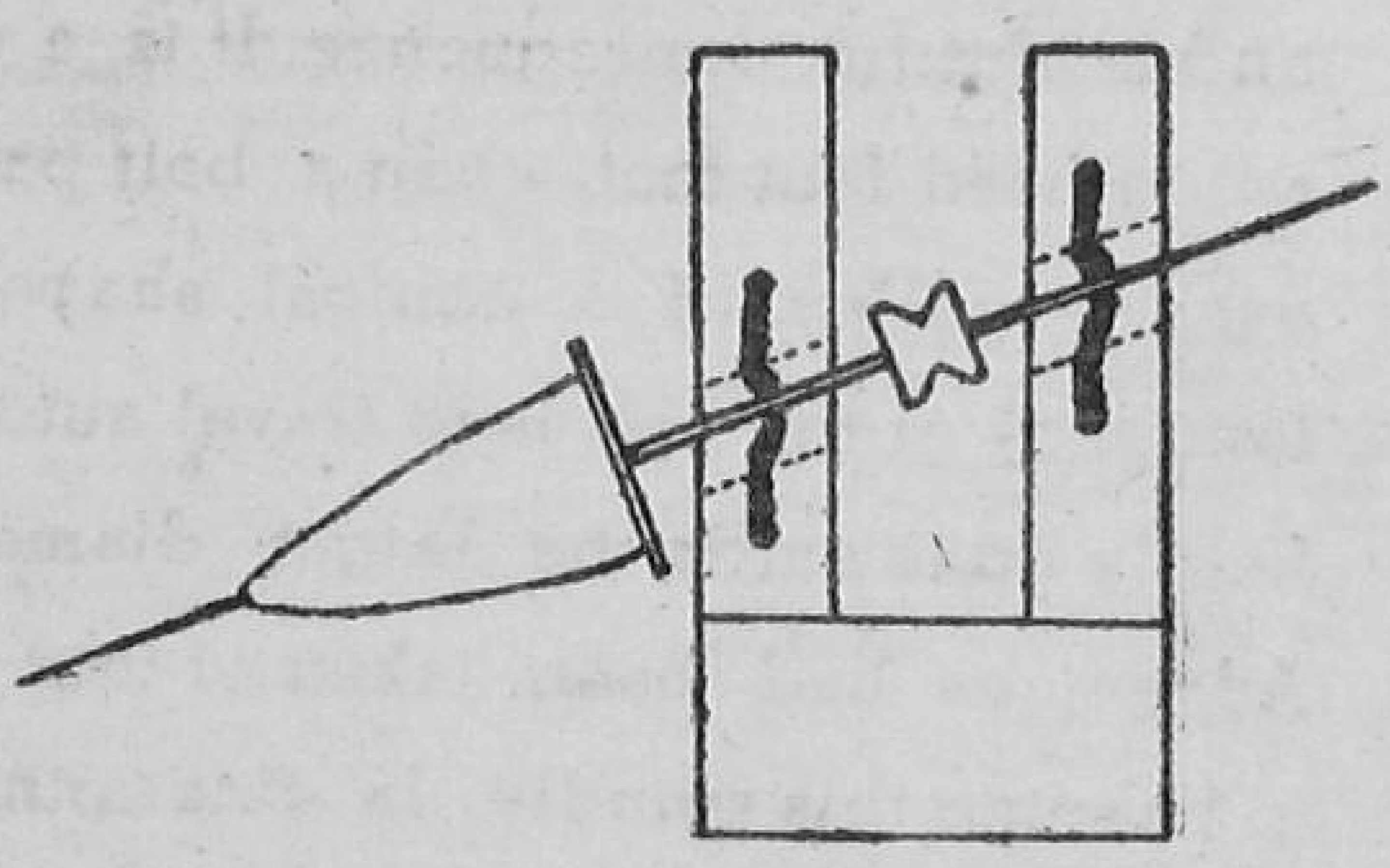
FIGURE 8.



The final charkha spindle at 21⁰ with horizon an 8⁰ with driving axis:

In the bamboo charkha the incline of the takli or of the mule spindle is maintained by suspending the spindle at 21 degree angle with the base.

FIGURE 8 A



The Bamboo Charkha Spindle at 21⁰ angle with Base aud 8⁰ angle with driving axis.

This mode of suspension allows the yarn to be wound on the spindle without effort and automatically the pull is towards the disc on the spindle against which the base of the cop is formed.

The inclination of the spindle to horizontal, as it helps the formation of the cop at the same time, exerts a pull by the *mala* on the spindle tending to push it up and make the pulley rest against the support with continued friction. This traverse of the spindle and the buffing of the pulley against

the support, however slight may be its effect, lessens the ease of the spinning movement of the spindle. This has been remedied in the bamboo charkha by allowing counter pull on the spindle by putting it at an angle of 8 degrees with the driving axis.

The 8 degree inclination puts opposite pull on the spindle making it to remain steady at any desired point without touching any of the supporting blocks and giving the utmost ease to drive. This is attained by the fine adjustment of the head piece to be set at correct angle. The drive is also from a flexible drum surface built on springy strips of bamboo radials. The result is a perfect suspension.

It has been found by mechanical practice that a high revolving spindle wobbles with a little unbalance. This unbalance is remedied if the spindle has an elastic suspension. This elastic suspension is perfected in the bamboo charkha by making the bearings of the spindle elastic inasmuch as it is kept in a position by the pull of the *mala* in a grove lined with a string of coir soaked in oil. The coir lining acts as a cushion while it is self-lubricating. The drive also is rendered elastic by making the spokes of the wheel flexible.

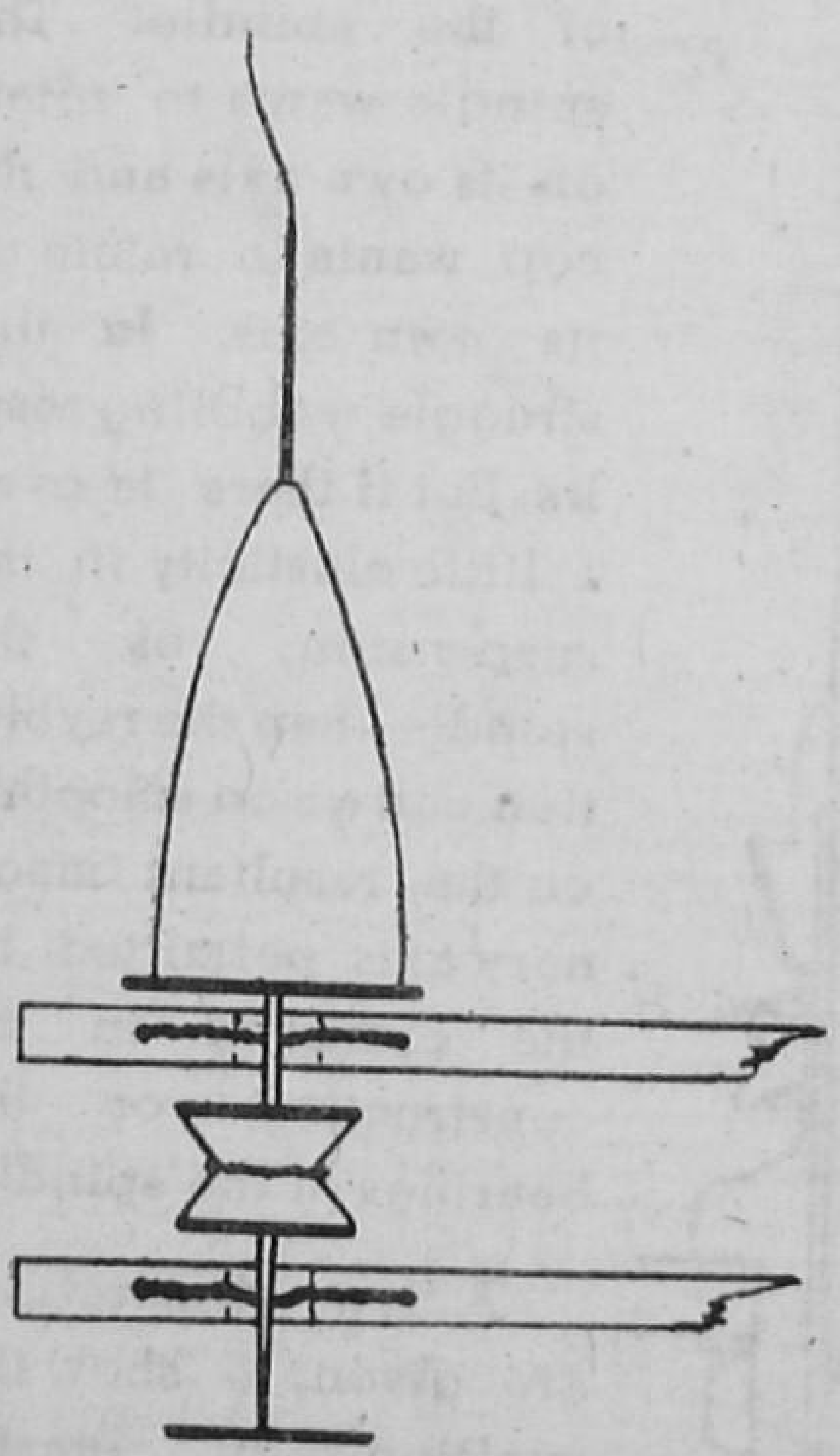
From these considerations the drive and suspension of the bamboo charkha remain unequalled hitherto with its 21° inclination to the base and 8 degree inclination towards the axis of the driving wheel.

The Elastic Snspension

The elastic suspension so perfected in the bamboo charkha is also a desideratum in all spinning spindles. In ring spinning the spindle is susceptible to wobbling on account of any slightest unbalance. Inventions after inventions have come to give better and better elastic suspension of the spindle. Still it is far remote from the elastic suspension attained in the bamboo charkha spindle.

In the domestic ring frame the same suspension is possible as in the bamboo charkha as shown in Figure 9.

FIGURE NO. 9.



The Elastic Suspension in vertical spinning.

The Ring Spindle And Its Suspension.

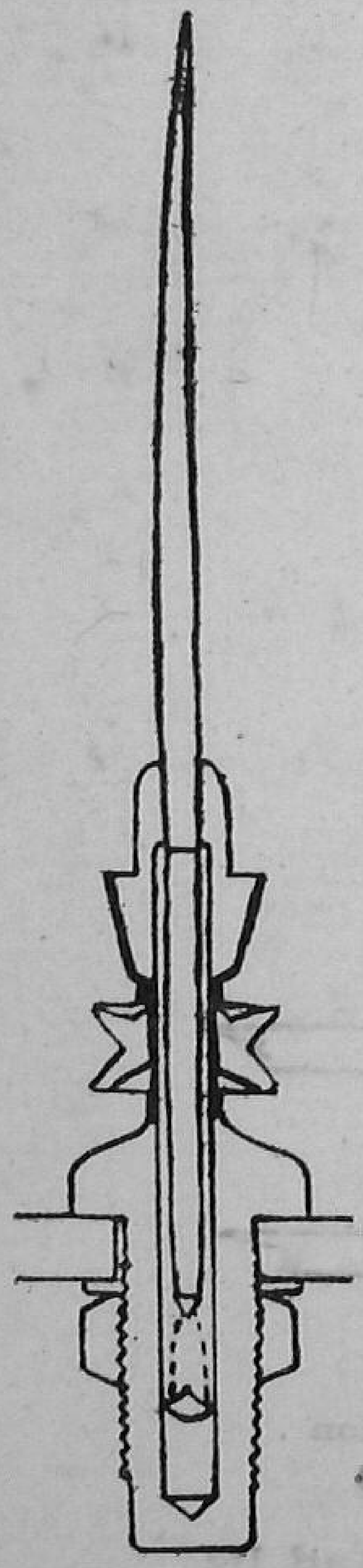
The ring spindle is a heavy piece weighing in some cases, 35 times more

than the hand-driven charkha spindle. The heavier the spindle becomes, the more difficult it becomes to maintain the elastic charater.

The Need of Elastic Character

In a fixed fuddle, fixed in its bearings, the spindle is rigidly held between two bearings. In a vertical spindle as in ring spinning, it so happens that if one side of the cap is a little heavier, be it ever so little, the central line of the cop ceases slowly the central line of the spindle. The spindle wants to rotate on its own axis and the cop wants to rotate on its own axis. In this struggle wobbling results. But if there is even a little elasticity in the suspension of the spindle, then the revolution can go on smoothly on the resultant imaginary axis permitted by the elasticity in the construction ot the bearings of the spindle.

FIGURE 10



The spindle in Ring Spinning with elastic movement.

A few illustrations are given to show the evoltion of elastic spindle for ring spinning.

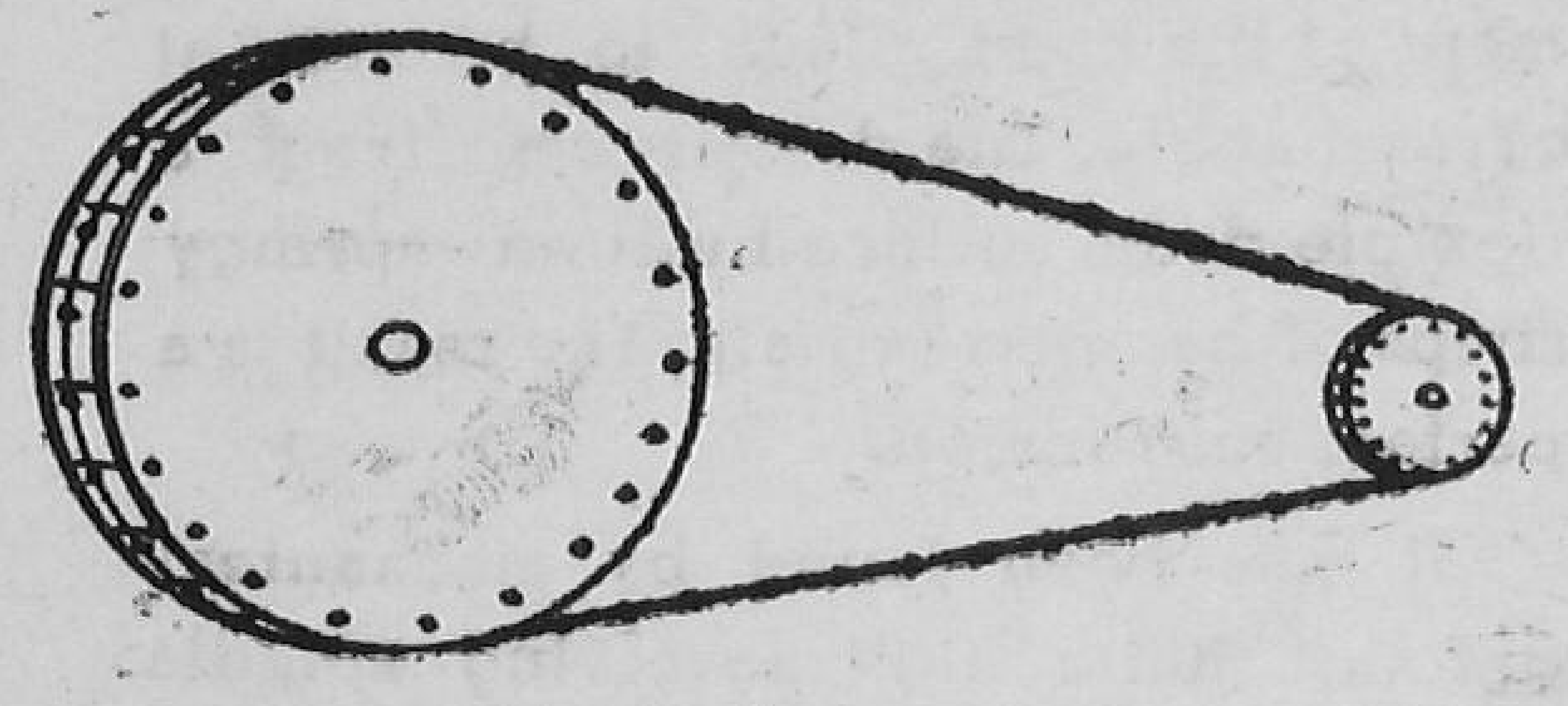
Ring Spindle

But the elasticity of the spindle as on the charkha remains unrivalled. This is because of the other factor of the drive. Elasticity in the drive also goes to help an elastic suspension of the spindle.

The Elastic Drive On Bird Cage Pulley

The bird cage pulley comes in as a suitable mechanism for providing an elastic drive.

FIGURE 11



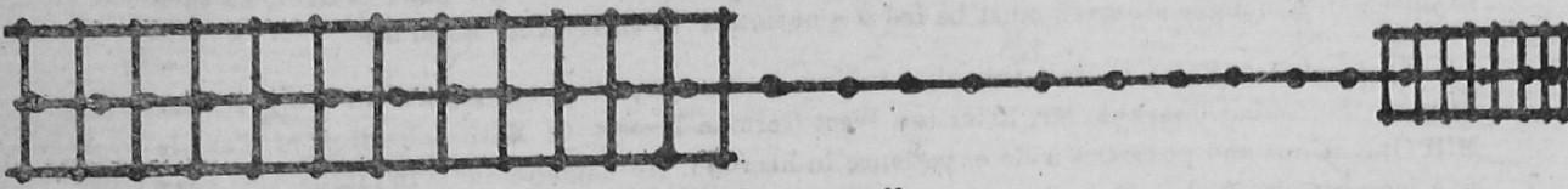
The Bird Cage drive

The flanges are put against a central core through which the axis passes. On the fringes of the flange holes are drilled through which thin rods are passed and rivetted. This is the bird cage drive. There is a corresponding pulley on the other terminus, the two are connected by a knotted string. The knots place themselves against the rods and prevent slippage. The knots give a little flexibility to the drive also. In this way a new ring-spindle suspension may be evolved on the pattern of the bamboo charkha.

The elastic spindle and the elastic drives are the basis of improvements in the spinning spindle. The adoption of elastically suspended wire spindle and

a bird cage knotted string drive is a matter of very great importance. Adoption of such combination wire means the utilisation of the thin umbrella wire spindle of the charkha put vertically in the ring frame and alllowed to rest on a plate glass surface in an oil well and suspended elastically on rope bearing spun–yarn considerably cheap and will be of help in leaving the hand driven single spindle cottage charkha undisturbed in its own sphere to be prized for clothing the nation humming its message of peace and bliss. It may bring about the day when work will not be paid on the basis of production, but on

FIGURE NO. 12



The Bird cage pulley.

and driven by knoted string *mala* over bird cage pulley. By this means the power consumption for driving spindles will be half of what is now required in the spinning mills for driving the spindles in ring frames.

Its application would be particularly suitable for cottage spinning with foot–power drive. Successful adoption of mechanised spinning of this type in cottages may make cottage-machine-

the recognition of the right of the worker to live and enjoy ordinary amenities of social life by working on whatever instrument the society may suitably have made available to him.

FIGURE 13

The knotted rope of rope drive.

GERMAN EXPERT REPORTS ON THE AMBAR CHARKHA

"The real headache for the Government and this country is to find some sort of employment to the large population of farmers who have really nothing to do for about five months a year, and how to supplement their sources of income reasonably. This is a very vexed problem and is a challenge to the people of the world to find a solution. An idle hand is likely to turn to mischief. A hungry stomach must be fed if a nation is to thrive and build up."

Mr. Gustav A. Etter makes this observation in the course of his report on the potentialities of the Ambar Charkha. Mr. Etter is a West German Expert in Rationalisation of Textile Mill Operations and possesses wide experience in his field. He came to India in March this year as a member of a Three-Man German Committee of Experts under the Technical Assistance Programme in March 1956. During his stay in India he was placed at the disposal of Textile Commissioner, Bombay. In the course of his investigations he evinced great interest in the Ambar Charkha and closely followed the working of the Ambar Charkha Pilot Programme. His report to the Government of India contains valuable suggestions for improvements in the Ambar set. Relevant extracts from his report are published below:

Many efforts are being made to introduce the Ambar Charkhas as soon as possible and in large quantities into the villages for two reasons: raising the employment in the villages and giving the villagers a scheme to earn some additional annas a day and assuring the yarn supply for the handlooms.

One should always bear in mind that by increasing the productivity and improving the quality in the handloom sector, and especially so in the villages, substantial increase in the income of the villagers will materialise.

The production of an Ambar Charkha undoubtedly is considerably higher than the production of a normal Charkha. Thus Khadi cloth made of Ambar Charkha yarn is correspondingly cheaper than cloth produced in the normal Charkha. The Ambar Charkha, therefore, is a very remarkable step forward along the Charkha line and on the basis of handspinning.

The question of the introduction of the Ambar Charkha depends primarily upon the answer to the question if there is no other means of raising the income of India's 1,80,000,000 who, according to statistics, earn 10 annas or less a day. Even 15,000,000 of her population earn 3 annas a day or less. The social and human problems as may be derived from these figures are very grave

indeed.

It may be said that this country, needing urgently every rupee for building up its economy on such a tremendous scale as outlined in the Five Year Plans, cannot afford to subsidise production of a certain commodity for a very long time. As a Khadiman put it himself : "Ambar Charkha may work wonders only if it is the poor man's only and the last hope for getting work with dignity and – if it is not challenged by competition". Rural underemployment and poverty is too severe in some parts of this country that the Ambar Charkha could play a useful role in those parts where distress is severe and no employment is available. In such cases Government subsidies could help on a relief basis.

Still, there are ways and means to render the Ambar Charkha more economic. Wherever the Ambar Charkha runs or will be introduced, there arises the absolute necessity to improve its economy through the best of training possible and thereby stepping up production and the quality of the yarn to the best performances. For this reason it is of the utmost importance that the staff of the training centres as well of the production and the quality obtained, these centes', and especially the man responsible for them, must be able to supply these figures any time. Only the knowledge of these figures will permit in time to increase the output of the Ambar Charkha and, going with this, the wages of the spinners and the handloom weavers by producing a good quality out of a good yarn.

Production figures and data concerning quality control of the yarn should be reported and examined by higher levels every week.

Supervision and Training

Supervision must never cease to train their instructors in the most adequate way. Instructors themselves always must be prepared to instruct their trainees. They must show their trainees how they can tackle their job better. The best way, of course, to do it is that instructors always lend their help to the trainees. In every training centre were spinners to be seen whose workload could easily be reduced if the instruction given was adequate. The trainees should be advised to report frequent thread breakages to their instructors and other troubles that will arise. It will, of course, still be better if the instructor does not cease to instruct and to help the spinners which will be of great assistance to the trainees.

Training and again training is of the utmost importance. A training scheme for supervisors, instructors and trainees should be provided for. These schemes should be based on the principle of the procedure suited best for doing the job. Supervision of training and training itself should be strictly executed according to this scheme. The training scheme should provide for the optimum rather than for the maximum of training time

and training effect. Good training requires the rigid observation of a drafting scheme that must be adhered to by every supervisor, instructor and trainee. The drafting scheme should give draft, doublings and counts and the type of cotton that is to be spun as was the case at *Atira*. It is no easy job to run an Ambar Charkha. It requires brains and some understanding of the spinning process. The same speed in working the Ambar should be used in order to get the same delivery of sliver or yarn and the same amount of twist. It should always be borne in mind that the trainees, once their training is finished, will go back to their villages where they will train other people on the Ambars. It is, therefore, of the greatest importance that these trainees did receive the best of training and are well prepared to train others themselves after leaving the training centres for the villages.

Quality Control

No adequate scheme for quality control is in existence. It is quality control that is to be observed to the utmost when producing yarn on the Ambar Charkha. As soon as possible quality standards on the Ambar Belni and the Ambar Charkha should be set up and be distributed to all training and production centres without delay. Quality competition should be introduced in training and production centres at once, especially in training centres. They should take place and repeat themselves as frequently as possible. Data obtained should be reported to higher levels weekly at least for one year or two.

The training and production centres do lack very badly quality testing instruments. How can these training and production centres effectively check their quality performance without having these instruments ? Quality testing instruments should be of relatively simple design and easily could be made in India. In the absence of these testing instruments, the sliver of the Ambar Belni and the yarn of the Ambar Charkha should frequently be tested on black paper in the centres themselves and be sent to the nearest textile laboratory for testing. *Atira* is well prepared for making proposals as to the best testing instruments that can be produced in this country. Especially the evenness of the yarn, the twist per inch and the count of the yarn produced should be tested. These tests are very important, indeed, for producing good yarn and good cloth, and obtaining good performance cuts costs and good quality, as is well known, sells better and most likely at a better price. The only method to find out the quality now is by weighing the yarn once and a-while and determining the count of the yarn. If a sliver is not weighed before being drafted, it will be very difficult to get the required count of sliver. In every training and production centre drafting schemes should be used. The only drafting scheme to be seen was at *Atira*. If one does not know the exact draft of the Ambar Belni and the Ambar Charkha and the count of sliver, it will be diffi-

cult to get the right count of the yarn to draft cotton of any length of staple. The proper draft for the special cotton only will give the results required.

Quality control should not be confined to spinning, but frequent weaving tests should also be made with the yarn tested in spinning in order to look into the efficiency and the quality of the handloom working that yarn. The yardage woven should be taken account of. Hereby some further improvement may well be suggested for spinning yarn on the Ambar Charkha. Good records of these data should be kept allowing for steady comparison and improvement of the yarn produced on the Ambar Charkha and woven on handloom.

It is of extreme economic and psychological importance that yarn produced on the Ambar Charkhas should have a good response from the handloom weavers. It primarily depends on this response and on the tests suggested if the Ambar Charkhas will compensate to a certain extent for some of its inherent uneconomics and to what extent.

Maintenance of The Ambar Charkha

The maintenance was partly found to be very poor. If the spindle loses its centre in the ring a broken end and eventually many broken ends will result. In order to make them smoother, rubber rollers should be treated with chalk powder which makes them smoother and non-sticking. The spindle drive should be properly looked after. The Ambar Charkha should be thoroughly cleaned every day to keep it in the best working condition.

Dhunai Modhia

The cotton processed through the cylinder eye-brows frequently by installation of a feeding cylinder eye-browing should decrease or be avoided altogether. Setting between the feed plate and the cylinder should be made adjustable. The galvanized iron combs on the cylinder are very rough. Material from the doffer vibrating combs should be used instead.

Ambar Belni

The bottle-neck of the Ambar Charkha line is Ambar Belni. If the installation of a 2-coil system will prove itself to be better, this bottle-neck will be broken by an estimated production increase of about 30 to 40 per cent. The size of roller stands should be made adjustable according to short, medium and long staple. Frequent entanglements of the sliver will be stopped by winding the sliver from a crosel by application of separators for the incoming sliver. In order to avoid rubbing of the material proceesed, the sides of the feed table should be smooth. The pulleys should conform with the full production required. Simplified adjustment of spring pressure on the rollers by means of rocks with page as bottom supports of the weighing springs of the top roller. Avoiding of irregularities by improper handling of the stands by an extra pair of self-weighted calender rollers.

Ambar Charkha

Application of 1" front roller instead of a 7/8" front roller will result in obtaining increased production. The angle of roller inclination to the horizontal should be set according to the mechanical ring-frames. The size of roller stands shoulds be made adjustable according to short, medium and long staple. Frequent entanglements of the sliver will be stopped by winding the sliver from a creel and by application of separators for the incoming sliver. Adjustment of lappet guides to the centre of ring and spindle. The spindle of the Ambar Charkha should be made stronger to make it more resistent to bending.

Introduction of a guage for quickly centering the spindles. Iron parts running on wood should get bearings of brass bush or gun metal. The bearing in which the foot of spindle is running should be improved so that frequent breakages caused by the spindle foot bearing will be stopped.

At *Atira* the question of improvements on the Ambar Charkha is being studied very closely and very efficiently, especially so by its senior scientific officer.

Standardisation

If Ambar Charkha will be produced in considerable quantities, the standardisation of its different parts is a necessity. Only then will it be possible to eliminate the danger of parts being used that are not standardised. In standardising a model, the conditions prevailing in the villages should be closely studied first. It does, for instance, not seem to be a good solution that ball bearings are made of hard paper since some day there may arise diffculties in the villages if these bearings will cease to function properly. Every good ball bearing, although expensive, however, will result in less strain on a spinner and could well lead to a Charkha with more than 4 spindles to a set. The wood being used for building the frame should be seasoned. Every improvement should first be thoroughly studied and extensively tried before its release for large-scale production. If improvements of considerable importance can be applied to the Ambar Charkha and for the modification of which a new model will be needed, the number of new models brought out in a year should not exceed one.

Conclusion.

A person having worked on the Ambar Charkha for about three months can master the art of running it efficiently, provided good training is given and that he or she possesses average intelligence and aptitude and a desire to work. If the Charkha is run by such a person for eight hours a day with an interval of at least one hour allowing for fatigue, he or she can produce about 6 ozs. on 4 spindles of 20s yarn in average good quality. The weavability of this yarn is

fairly good and would compare favourable, with the yarn spun specially for the market and for handloom industry by an average textile mill in India.

NOTE: The Union Ministry of Production and the All India Khadi and Village Industries Board are cognisant of the deficiencies in relation to productivity of the original Ambar Charkha sets which were used in the Pilot Project Programme. The technological tests that were then being carried on at the Ahmedabad Textile Industry Research Association (ATIRA) and the Technologcal Laboratory in Bombay are being continued.

Progress of these tests and research activities are contained in the reports submitted by these two institutions to the Government of India. The nature of the tests carried out, the improvements made and the results obtained are published below.

A study of these reports will show that those responsible for the Ambar Charkha Scheme and its implementation, are alive to the needs of technological improvements in the spinning set. The activities at the institutions, it will further be seen, closely follow the points raised by Mr. Etter. The improvements effected are, by and large, on the lines suggested by him.

The report of the Technological Laboratory is particularly interesting for its yarn tests. The results obtained more than sustain the claims made by the All India Khadi and Village Industries Board that the Ambar Charkha yarn compares favourably with reeled mill yarn and that, in certain respects, is superior to it.

'ATIRA' REPORTS PROGRESS ON THE AMBAR CHARKHA

In this report an account is given on the new developments and modifications introduced by the Ahmedabad Textile Industry Research Association (ATIRA) in the Charkha Set comprising the Dhunai Modhia, Ambar Belani, the Charkha and the Reeling unit along with the simple gadgets made to facilitate control of yarn quality. Some relevant particulars of each newly made device are put down, including, wherever possible, the approximate cost of the items. These devices are being constantly used at the shed put up at ATIRA and have been thus well tried out. They have led to a considerable improvement in the quality and output of the yarn spun.

Dhunai Modhia

1. In place of the mild iron sheet feed plate used before, the one made

from a galvanised sheet (20 gauge) has been used. The net advantage has been in the significant saving in the time made cost of labour required to make this, as compared with the old one.

2. A new Modhia has now been made with a $2\frac{1}{2}''$ diameter wooden cylinder carrying 16 combs, and having a width of 4" instead of the existing 3". The overall length of the Dhunai Modhia has been increased with large grid area for the efficient elimination of dust and other impurities. The speed of the cylinder has been significantly reduced (from about 4,500 to 2,000 r. p. m.) and a perforated cage is provided at the delivery end with a heavy cylinder roller in contact with the cage. The opening at the delivery end of the machine near the cage is made narrow by arranging the grid surface inclined upwards. The cage can be run at any desired speed. In this new modification the opened fleece of cotton is collected by the cage and the calander roller and is delivered in the form of a continuous even sheet.

The idea in decreasing the cylinder speed is to try the possibility of opening the finer staple cottons like CO2, Rajpalayam etc. on the Dhunai Modhia without much damage to the staple. In the first instance, a fan was used in conjunction with the cylinder; but now, due to the opening at the delivery end being made narrow, the air draft created by the cylinder alone is found to be sufficient to throw the opened cotton on to the cage. The fan could be thus dispensed with.

Modifications are yet in progress to make the Dhunai Modhia perfecctly suitable for processing both the short as well as the long stable cotton. It is clear that an increased efficiency of the unit in cleaning and opening also results in a high production rate on account of the decrease in the time secured in the preparing of raw cotton for the second stage. In addition to these trials a Dhunai Modhia with 6" wide cylinder and 18 comb blades instead of 16, is being made. Here it is expected that the heavy cylinder with more combs would open and clean the cotton efficiently even at a comparatively low cylinder speed of 2,000 r. p. m. The working surface also would, in this case, be double that of the existing Dhunai Modhia.

Ambar Belani

3. A gear wheel driven Belani brought to ATIRA sometime back was found to give a draft of 4 and a front roller delivery of about 5" per revolution of the main handle wheel. This was less than the corresponding rate of delivery in the normal band driven Belani which was about 7 to 5". First of all, the draft of the Belani was increased to 5.0 by proper selection of the gear wheels, while the rate of front roller delivery was increased to 8.5", i. e., about 13 per cent more than the normal Belani and about 70 per cent more than the original gear wheel Belani.

Next a pair of calender rollers was also added on to the

unit, the drive to the bottom calender being obtained from the front roller by the gear drive. The outstanding merit of this unit is the complete elimination of slippage and the frequent changes in the draft, a consequence of slippage. Thus, the hank of the material is kept ranging within narrow limits and there is a good possibility of obtaining more production with less stoppages. This Belani is in constant operation at the ATIRA shed for some time and is found to run fairly light.

Another gear wheel driven Belani is being made with the necessary modifications for the reduction of the noise which is much marked in the present model.

4. Iron trumpets of different bore diameters fitted suitably in wooden brackets have been made and used on all the Belanis which are used at ATIRA shed. These trumpets act as front condensers proceding the calender rollers during the drawing operation and as back guides during the drawing and twisting operation in roving. These trumpets have replaced the fragile plastic funnels which were being used before.

5. At the feed end of the Belani there is a frequent tendency for the sliver to get stretched or broken when the friction offered by the stationary feed plate is high. This aspect is much more important in case of the finer count spinning and during the monsoon season. In spite of the feed plate side being made smooth, this difficulty used to occur very frequently when the performance of the Charkha Set for the 40's count yarn spinning was being tested during the recent rainy days. Now, a very simple but novel arrangement has been made to eliminate the stretching and breaking up of lap or sliver by the provision of a 7/8" diameter light tin drum which is made to rotate with the same surface speed as the back drafting roller, thus assisting the sliver to pass on to the drafting zone in a perfectly undamaged condition. The drum is driven by frictional contact with a fluted roller 7/8" diameter which, in its turn, is driven by the main handle wheel.

This arrangement is very simple and does not increase the load to drive the Belani. As the stoppage due to sliver break or the variation in hank roving due to the uncontrolled stretch at the feed end is minimised, this modification can very conveniently be introduced on all the Belanis irrespective of any specific count of yarn spun.

6. Two sets of Twin Can Belanis received from the Sabarmati Ashram are being tested for their performance from the quantitative as well as the qualitative points of view.

7. The effect of reducing the number of processes from 8 to 7 in 20, 24, 30 and 32's counts on the quality and quantlity of the rovings made on a number of Belanis and the consequent differences in yarn quality, are being studied by a set of operators on an equal number of Charkhas. Very similar to the short cut processings often

adopted in the spinning mills, it may be possible here also to reduce the number of roving processes on the Belani when a good quality cotton is used for a particular count and yet keep the quantity of the yarn spun within the permissible limits. In certain cases when a very high quality yarn of a particular count is specifically not needed, then the number and thus the time of processings could be reduced on the Belani. It is, however, very essential not to change the number of drawing and roving processes, indiscriminately, as it will have a deterimental effect on the regularity of the roving made.

Ambar Charkha

8. A very simple but reliable roving traverse device has been perfected and fitted on all the Charkhas working at the ATIRA shed. The length of the traverse is about 5/8". This arrangement is a decided advantage in prolonging the life of the top roller cots, particularly when the rubber cots are being employed.

9. The spindle hand tensioning by the existing arrangement is not quite smooth in action and the frequency of band breaks is rather high. This is due to the spring not responding properly to the tension variations. A new arrangement similar to the jockey tension pulley of a ring spinning frame is being tried at present. A prototype model has been made and fitted to one Charkha for trial purposes.

10. The performance of an Eight Spindle Charkha received from Nagpur, was studied from the view-point of the quality as well as the quantity of yarn spun on it. A detailed report on this Charkha was submitted to the Ministry of Production.

11. A similar study was also made on the Sundar Model of Ambar Charkha and a report thereon was submitted as in the preceding case.

Testing And Quality Control

12. A wrap block 6" wide and 36" circumference was made out of good seasoned teak wood and 20 gauge galvanised sheet. Its accuracy was tested and found to be good. This is used to measure out the required length of roving for determining the hank and in conjuction with a good balance, complete the essential equipment required in controlling the handle of roving made on the Belani. Its present cost as made at ATIRA is estimated to be about Rs. 25 while a wrap block of foreign make would cost about Rs. 500. The wrap blocks of this type have already been made and are being used constantly.

13. A special case with a lifting device for the balance housed in it has been made at ATIRA and is being regularly used for weighing the rovings, yarn etc. The balance is thus maintained clean and accurate in working. A set of grain weights have also been made at ATIRA and calibrated against the standard ones carefully.

14. A wrap reel has been also made

recently. It is made of wood excepting for the gear wheels and has a circumference of 1.5 yards. One revolution of the driving handle corresponds to two revolutions of the reel. A yarn traverse device is also fitted on the machine together with a bell signalling device to indicate accurately every 120 yards of yarn wound on the reel. The reel's accuracy has been fully tested. It can be used very conveniently for determining the count of yarn spun and also for reeling the yarn from bobbins to hanks. Since there is a provision for four bobbins to be reeled at a time the time required for making a hank is largely reduced as compared to the time consumed by the existing methods. The cost of making this reel has been found to be about Rs. 30 (when made on a mass scale it would be still less) whereas a foreign wrap reel would cost above Rs. 1,000.

AT THE TECHNOLOGICAL LABORATORY

Experiments were carried out at the Technological Laboratory Matunga, Bombay, on the improved Ambar Charkha unit at the request of the Ambar Charkha Committee, Ministry of Production, Government of India.

The improved Ambar Charkha was operated by two expert workers, Shri Jai Dev Mohan and Shri Mangaldas J. Patadia, deputed by tne Khadi Board.

Experiments were done during the period commencing from 14-5-55 to 2-6-1956.

The present report describes the test results obtained on the improved Ambar Charkha Unit.

These experiments were conducted on the following four cottons:-

1) Wagad cotton (Baled) spun to 12s counts.
2) Vijay cotton (baled) spun to 20s counts.
3) Vijay seed-cotton spun to 32s counts.
4) Rajapalayam cotton (baled) spun to 40s counts.

Samples of Wagad, Vijay and Rajapalayam cotton were drawn from bales supplied by the Textile Commissioner, Bombay, and the seed cotton of Vijay was supplied by the Ambar Samiti, Ahmedabad.

For purposes of comparison, reeling yarns of 12s, 20s, 32s and 40s counts were supplied by the Textile Commissioner.

Method

Treatment : For each cotton, preliminary tests were carried out for two days, and the next three days were

devoted to actual performance tests.

The daily routine of 8 hour's work generally included the following process for baled cotton :-

1) Beating on Jally (gause)
2) Weighing 1 or ¾ tola lots for processing
3) Frawing on Belni before carding
4) Carding on Dhunai Modhia and Patta making
5) Drawing singles on Belni
6) 2nd Drawing on Belni
7) 3rd Drawing on Belni
8) 4th Drawing on Belni
9) 1st Roving on Belni
10) 2nd Roving on Belni
11) 3rd Roving on Belni
12) 4th Roving on Belni
13) Spinning on Charkha Ring frame
14) Reeling (wet reeling)

When seed-cotton was taken for tests, it was first ginned with "Salai Patri" and the lint obtained was subjected to the above process except that Dhunai Modhia was not employed and that the opening of the cotton was done by bowing with a small Pinjari bow.

All the experiments were conducted in a room where there was no control of relative-humidity and temperature.

The yarns were wet-reeled and allowed to dry in a room under natural atmospheric conditioned for over 24 hours and further conditioned for over 24 hours in a room maintained at a relative humidity of 65% + 2% and temperature of 84^{0}F + 1^{0}F. and then tested for various properties.

The reeling yarns supplied by the Textile Commissioner were conditioned and tested without wetting in water.

Yarn tests: The following tests were carried out on the yarns spun with the Charkha for the performance tests and on the reeling yarns.

(1) Lea strength and counts
(2) Single-thread strength and extension
(3) Twist
(4) Evenness and Neppiness
(5) Winding breaks during reeling.

Lea tests : 25 leas were tested for each count spun on each day for performance tests; as three days were alloted for these tests, 75 lea tests in all were done for each count.

Single-thread tests: 200 tests were done on good brands tester on 12 inch length between grips for each count of each day's production: thus, in all, 600 tests were carried out for each count.

Twist tests: 200 tests were carried out on single yarn 1/3 inch-lengths on the Rockbank Single Yarn Twist Tester for determining the turns per inch of each count of each day's production.

Evenness and Neppiness: These yarns were visually examined for evenness and neppiness after winding the yarn on drum covered with black velvet.

Winding breaks: Winding breaks

were recorded during the wet reeling of yarn with the aid of a winder provided on the Yerawada Charkha.

THE RESULTS

Spinning Process

The Rajapalayam baled cotton was found to be extremely neppy and preliminary tests conducted on it showed that it was difficult to process it. There was a large number of end breakages (38 in I hour 52 minutes) on the Charkha during spinning, and the lea strength of 40s counts was about 20 lbs. In fact, the yarn broke when it was being unwound for tests. The workers, therefore did not process this cotton.

Yarn breakage during spinning

The average end breakages during spinning for about 2½ hours were 6 for 12s, 10 for 20s and 9 for 32s counts.

Winding breaks : The breakage during reeling were 7, 23 and 14 for 12s, 20s and 32s counts respectively.

The yarn test results are given in Table I at the end.

Lea test results: It will be seen from the results that the mean value of 25 lea tests done on each day's production during performance tests, does not vary much from day to day. Further, the average actual count obtained for each cotton is within the limits of tolerance i.e., within 5% of the nominal counts.

Lea Strength: The strength in regularity given in Col. 9 of Table I shows that the variation in strength is not high.

It may be noted that the lea strength, corrected to nominal counts, is 113.3 lbs. for 12s, 72.4 for 20s and 46.1 for 32s counts which may be regarded as satisfactory.

Single-thread tests : The results of single thread tests are given in Table I Cols 11 to 15.

It will be observed from these results that the counts of yarn obtained from single-thread tests show a close agreement with those obtained from lea tests.

Twist tests : The results entered in Col. 17 of Table I show that the twist factor or the twist multiplier ranges from 4.8 to 5.6 which is rather high, especially for the finer counts.

Yarn Evenness and Neppiness : The evenness class and the neps per yard given in Col. 18 and 19 respectively in Table I show that 12s yarns were generally even; the 20s were fairly even and the 32s were fairly even to uneven. As regards neppiness, it will be observed that the yarns were rather neppy.

The test results of yarns spun on the Ambar Charkha and those of the reeling yarns supplied by the Textile Commissioner are given in Table II at the end. For the sake of convenience, each property is entered below separately :

LEA COUNTS.

	Ambar Charkha Yarn			Reeling Yarn		
Counts nominal	12s	20s	32s	12s	20s	32s
Counts actual	12.3	20.4	32.5	11.2	18.9	30.9
Co-efficient of variation %	5.1	3.4	3.8	4.2	3.5	3.3

It will be seen from the above Table that the co-efficient of variation of count of the Ambar Charkha Yarns compares favourably with the corresponding values of the reeling yarns. Further, the Ambar Charkha yarns were very near the nominal count, while the reeling yarns were coarser.

TABLE BELOW GIVES THE RESULTS OT LEA STRENGTH

	Corrected Lea Strength in lbs	
Counts nominal	Ambar Charkha Yarn	Realing Yarn
12s	113.3	100.0
20s	72.4	66.0
32s	46.1	41.5

The figures given in the above table show the Ambar Charkha yielded stronger yarns than the reeling yarns. It may, however, be remarked here that the twist inserted in the Charkha yarns was higher for 20s and 32s than that in the reeling yarns.

Lea strength Irregularity (Per cent)

Counts nominal	Strength Irregularity per cent	
	Ambar Charkha Yarn	Reeling Yarn
12s	6.8	9.7
20s	6.0	6.7
32s	5.8	9.8

From the above Table, it will be seen that the Ambar Charkha yarns gave lower variation in strength than reeling yarns.

Single Thread Tests : Below are summarised in tabular from the results of single thread tests ;

Counts nominal	Counts Actual		Counts Strength Product (Oz. Counts)	
	Ambar Charkha Yarns	Reeling Yarns	Ambar Charkha Yarns	Reeling Yarns
12s	11.9	10.8	196	199
20s	19.9	18.3	245	194
32s	31.9	30.2	249	245

The following observations could be made from these figures :

Counts: : The counts of reeling yarns were coarser than the nominal, while those of the Charkha yarns were about the same as the nominal as was observed in the lea test.

Count-strength product : The count-strength products of yarns spun on the Charkha compare favourably with those of the reeling yarns.

Extension % : These figures given

in Table I show that the Ambar Charkha yarns possess somewhat lesser extension than the reeling yarns.

Twist Tests : The Ambar Charkha yarns (20s & 32s) were twisted to a higher number of turns per inch than the reeling yarns for the same count, the twist multiplier ranging from 4.9 to 5.3 for 12s; 5.2 to 5.6 for 20s; and 4.8 to 5.2 for 32s; while those of the reeling yarns were 4.8, 4.2 and 4.5 for 12s, 20s and 32s counts respectively.

Evenness Class : The Amber Charkha yarns were a little more even than the reeling yarns.

Neps per yard : The differences between the neppiness of the two yarns were small and within sampling errors.

Summary and Conclusions

The Ambar Charkha unit consists of

(I) Dhunai Modhia,

(II) Ambar Belni (sliver preparer), and

(III) Ambar Charkha (a simplified ring frame).

The first two devices are meant to clean the cotton and prepare a suitable roving for feeding the Ambar Charkha.

The following modifications have been made in the improved Charkha unit :-

In the improved Dhunai Modhia, having adjustable feed rollers, it was possible to adjust the distance between the plates and the feed roller according to the staple length of the cotton. This adjustment was not possible in the previous model.

The Patta Peti (Box) for forming lap, was found useful for preparing a fairly good well-pressed lap. This Box was not available with the previous set.

The addition of a pair of Calender Rollers to the Belni helps the production of a good and well-pressed Drawing sliver.

The cone-shaped wire frames were useful for the unwinding of rovings.

From the results obtained in these experiments, the following conclusions may be drawn :

1. The average production of yarn in hank obtained for 8 working hours with 4 spindles are as follows :

Counts	12s	20s	32s
(a) Charkha alone	26.64	19.84	19.20
(b) Based on total time taken up to spindle point (inclusive of spinning) including preparatory processes but *excluding* time taken for repairs and changes for counts, cotton etc.	7.92	7.04	6.64
(c) Based on total time taken including preparatory processes spinning and reeling but excluding time taken for repairs and changes for counts, cotton etc.	6.56	5.68	5.52

2. It may be remarked here that this producion could be obtained only due to the marked ability and expert handling of the workers, who worked strenuously without loss of time during the performance tests for three days, except the time taken for small repairs, tightening strings etc.

3. The Ambar Charkha yarns were stronger according to the lea test than the reeling yarns. The range of variation of lea strength of the Ambar yarn was comparable with that of the reeling yarn, the Ambar yarns being slightly better.

4. A trend similar to that observed in the lea tests was shown by the single thread tests. It may, however, be mentioned that the Ambar Charkha yarns were slightly less extensible than the reeling yarns.

5. The Ambar Charkha yarns possessed somewhat higher twist than the reeling yarns, especially in 20s and 32s, which may partly account for the slightly higher yarn strength obtained for the former.

6. It will be observed that, generally, the yarns spun on the Ambar Charkha compared favourably in all respects, with the reeling yarns.

TABLE
Yarn Test

1	2	3	4	5	6	7	8
Cotton	Date of Spinning	Counts nominal	LEA TESTS				
			Actual Counts	Variation of actual counts from nominal (coefficient of variation) %	Lea Strength (lbs)	Lea Strength Highest reading (lbs)	Lea Strength Lowest reading (lbs)
Wagad (Baled)	23-5-56	12s	11.6	8.9	111.0	142.0	92.5
	25-5-56	12s	12.2	3.3	110.8	119.0	98.0
	26-5-56	12s	13.0	3.1	106.6	119.0	95.0
		Mean	12.3	5.1	109.5	–	–
Vijay (Baled)	16-5-56	20s	21.0	3.8	65.5	74.0	53.0
	17-5-56	20s	20.2	2.5	71.9	85.0	64.0
	18-5-56	20s	20.0	3.8	73.5	83.0	62.0
		Mean	20.4	3.4	70.3	–	–
Vijay (Seed Cotton)	31-5-56	32s	32.6	3.9	44.0	48.0	40.0
	1-6-56	32s	33.4	3.8	43.6	50.0	38.0
	2-6-56	32s	31.5	3.6	47.2	53.0	39.0
		Mean	32.5	3.8	44.9	–	–
				Results of the Reeling yarn knots			
12s		12s	11.2	4.2	110.3	130.0	92.0
20s		20s	18.9	3.5	72.1	87.0	56.5
32s		32s	30.0	3.3	44.0	52.0	32.0

* Irregularity percentage is calculated from the formula $\frac{M \times M1}{M} \times 100$ where M is the mean and

** Evenness class classification : 3 — Even;
4 — Even to fairly even;
5 — Fairly even;
6 — Fairly even to uneven;
7 — Uneven.

*** Neps per yard :- Classification : upto 0.5 neps per yard — Practically free of neps
Between 0.5 and 1 nep per yard — Slightly neppy.
" 1 and 2 neps — Rather neppy
" 2 and 5 neps — Neppy
" 5 and 10 neps — Very neppy.

T. M. — Twist Multiplier.

1
Results.

9	10	11	12	13	14	15	16	17	18	19
		SINGLE THREAD TESTS								
Irregularity % *	Count Strength product	Actual counts	Strength (ozs)	Count strength product	Strength irregularity % *	Extension %	Twist	T. M.	Evenness class **	Neps per yd. ***
6.3	1288	11.8	16.4	194	12.0	8.1	16.7	5.1	3	2.0
6.8	1352	11.8	16.9	196	10.3	7.6	18.5	5.3	3	1.5
7.4	1386	12.2	16.1	196	11.7	8.2	17.5	4.9	4	2.0
6.8	1347	11.9	16.5	196	11.3	8.0	17.6	5.1	–	–
6.4	1376	19.5	12.1	236	17.4	6.5	25.6	5.6	6	1.5
5.1	1452	19.2	12.6	242	13.6	6.2	23.5	5.2	5	1.8
6.4	1470	21.0	12.2	256	15.6	5.7	24.6	5.5	5	1.5
6.0	1434	19.9	12.3	245	15.5	6.1	24.6	5.4	–	–
5.7	1434	33.1	7.4	245	19.4	4.9	29.2	5.1	5	1.2
5.6	1456	32.0	8.1	259	17.8	5.6	27.8	4.8	6	1.5
6.2	1487	30.7	8.0	246	18.0	5.7	29.4	5.2	6	2.2
5.8	1459	31.9	7.8	249	18.4	5.4	28.8	5.0	–	–
supplied by the Textile Commissioner.										
9.7	1235	10.8	18.4	199	15.1	9.9	16.1	4.8	6	1.5
6.7	1363	18.3	10.6	194	11.3	7.0	18.2	4.2	7	1.0
9.8	1360	30.2	8.1	245	9.1	6.1	24.9	4.5	6	1.2

Ml is the mean of those readings which are less than M,

Table No. 2.

Table showing results of Ambar Charkha yarn and Reeling yarns

Counts nominal		12s	20s	32s
Lea tests				
Corrected Lea strength (lbs)	Ambar Charkha yarns.	113.3	72.4	46.1
	Reeling yarns	100.0	66.0	41.5
Coefficient of variation of counts %	Ambar Charkha yarns	5.1	3.4	3.8
	Reeling yarns	4.2	3.5	3.3
Strength Irregularity %	Ambar Charkha Yarns	6.8	6.0	5.8
	Reeling yarns	6.7	6.7	9.8
Single Thread Tests				
Strength (ozs)	Ambar Charkha yarns	16.5	12.3	7.8
	Reeling yarns	18.4	10.6	8.1
Count-strength product	Ambar Charkha yarns	196	245	249
	Reeling yarns	199	194	245
Extension %	Ambar Charkha yarns	8.0	6.1	5.4
	Reeling yarns	9.2	7.0	6.1
Twist tests				
Turns per inch	Ambar Charkha yarns	17.6	24.6	28.8
	Reeling yarns	16.1	18.2	24.9
Twist-Multiplier	Ambar Charkha yarns	4.9 to 5.1	5.2 to 5.6	4.8 to 5.2
	Reeling yarns	4.8	4.2	4.5
Evenness class	Ambar Charkha yarns	3 to 4	5.9 to 6	5 to 6
	Reeling yarns	6	7	6
Neps per yard.	Ambar Charkha yarns	1.5 to 2	1.5 to 1.8	1.2 to 2.2
	Reeling yarn	1.5	1.0	1.2

ECONOMIC DEVELOPMENT AND CHOICE OF TECHNIQUES

By :
K. R. DATYE & R. K. PATIL

The object of sound economic policy is to bring about as rapid a growth as is possible. In doing this, there are two objectives which must not be lost sight of :

1, build-up of the stock of capital at the fastest rate or accelerated capital formation, and
2. to ensure a state of near full employment.

It is presumed that the first objective can be best served by adopting most modern techniques. These techniques are generally capital-intensive. To this school of thought technological improvement is synonymous with increased capital intensity. Labour - intensive techniques are assumed to be inherently backward. According to it, economic development (which means capital formation and technical improvement), nd labour-intensive methods are m utually exclusive.*

However, there is another school of thought which, while agreeing in substance with the above thesis, would give priority to the second objective. This school distinguishes between an investment plan with an employment aspect and an employment plan with an investment aspect, though both of them are not necessarily mutually exclusive. But, at certain stages, they may become mutually exclusive. In that case, the choice for the community is clear. According to this latter school, it is socially desirable to use such techniques and combinations of techniques which collectively employ labour fully. In other words, this school, afraid of technological unemployment which might disrupt certain values accepted by the society, would prefer moratoria over capital-intensive techniques, till the society is prepared to take the next advance. In brief, this school advocates labour in-tensive methods as the next best alternative.

An Analysis

An attempt is made here to examine the above views and show that in underdeveloped, overpopulated countries, not only the labour-intensive techniques are the best in initial situation, but, that, at certain stages of economic development, they are a *sine qua non* for accele-

* See articles by Shri Madan in Reserve Bank of India Bulletins, September, 1955, December, 1955.

rated capital formation. No attempt is made to elaborate the monetary and other policy measures required to bring about the necessary technological transformation. The analysis is mainly physical. Finally, lest there be any misunderstanding, it may be emphasised that our analysis is not a plea for perpetuation of 'inefficient' labour intensive techniques, but rather a plea for recognising the necessity of adjustment of labour-capital ratio to the reality, which incidentally also contributes to capital formation and economic development. Automatic transition will be made to better techniques with the improvement in labour-capital ratio. If this is not accomplished by automatic forces, government policies shall have to be directed to bring it about. But in a mixed economy where private enterprise has a scope, experience shows that such transitions come about automatically.

Factor Proportions

The hollowness of the first argument can be easily demonstrated. While making a plea for adoption of capital-intensive techniques, it is not realised that enormous quantities of capital would be required for extensive application of mechanised techniques prevalent in U.S.A. and European countries. If the rise in productivity is to be obtained primarily by capital intensive processes, the pace of development will be severely limited by the possible rate of capital formation. Besides, such a policy would create an immense unemployment problem. The income level, savings and the rate of capital formation are necessarily low in an underdeveloped country. On the other hand, labour is cheap and plentiful. The acute scarcity of capital and the relative abundance of labour is not appreciated when labour saving techniques are recommended. In short, this school refuses to accept the existence of the 'factor proportions' problem. Below we present a table showing capital resources of various countries. It throws light on the magnitude of 'the capital' problem, if modern techniques are to be adopted extensively.

Capital in International units per head of persons in work.

U. S. A. (1939)	5,820
Britain (1932–34)	6,660
Canada (1929)	5,500
Egypt (1937)	450
Japan (1930)	2,380

See Colin Clark : Conditions of Economic Progress p.p. 486-489.

	India (In crores)	U. S. A. (In crores)
Fixed Capital	Rs. 4,000	100,000
Working force	14.5	5
Capital per head of persons in work.	2.759	2,000

N. B. : Figures for India have been calculated from the census of manufacture and refer to the years 1954-55. Date for America have been adapted from Leontiff. They refer to years 1939 anp 1940. At present, the capital labour ratio must have been improved.

Output-Capital Ratio

In a developed country, when a substantial part of capital is unused, it is possible to increase produce by necessary monetary measures. In such cases there in no direct connection between the new investment and increase in output. On the other hand, in an underdeveloped country the limitations to increased production are primarily physical as determined by the rate of capital formation. In such cases the aggregate increase in production will be equal to increased capital stock to the output capital ratio.* Hence the aggregate increase in production is a function primarily of the capital-output ratio and the investment but not necessarily of capital intensity, Emprirical study of alternative techniques in a few technical industries reveals that the output-capital ratio is generally higher for relatively labour-intensive processes. Introduction of labour intensive methods for a part of the production would, therefore, result in an increase in the output-capital ratio. At certain stages of development, depending upon factor endowments, it may then be necessary to use combination of different techniques for accelerated capital formation. In other words, coexistence of modern capital-intensive techniques and methods using a great deal of labour and little capital might become a necessity for economic development.

In this connection, it would be useful to refer to the concept of 'optimum capital intensity'. Recent studies on economic growth have highlighted some of the important aggregates affecting growth. Mr. Power has built a very simple growth model depicting the relations between a few aggregates viz. total demand, the capital stock and the labour force. He states the condition for stable growth as follows : "potential output given by the existing labour force and capital stock must be matched at all times by the total demand for output given by the saving function and capital formation where the latter is put sufficient to equip investments to the labour force in the optimum ratio."§ Mr. Power has clearly shown that any

* By capital is meant the fixed capital stock and the output is taken to be the value added. These definitions will be adhered to throughout article.

§ American Economic Review, May, 1955 pp. 197–98. Commenting on this paper, Mr. Domar gives a growth model consisting of four simple equations. They are as follows :

1. $I = c.\frac{dl}{dt}$ 3. $Y = pl$

2. $S = s.y$ 4. $K = s$

where C stands capital intensity, S for the fraction of income saved, P for average labour productivity and I, L, S and Y indicate investment, labour force, saving and income respectively. The solution of this system takes the form of

$$\frac{\frac{dl}{dt}}{L} = s.\frac{p.}{c.}$$

In the other words, under assumed conditions, there exists an optimum rate of growth of the labour force which will assure sufficient investment for the maintenance of full employment".

deviation from this optimum capital intensity in either direction would in one case lead to chronic inflation with growing unemployment, and, in the other, to chronic depression with growing unemployment. This is quite significant. "His model shows how an attempt to equip a rapidly growing labour force with a sufficient capital epuipment can simultaneously create inflation and unemployment - a phenomenon not unfamiliar to students of underdeveloped countries."*

Development can, therefore, be accelerated by employing technique which would bring about the maximum increase in the productivity *with the available resources of capital.* At the same time the pattern of investment should be such that capital formation is maximised.

Available capital resources should, therefore, be used with utmost economy husbanding out every bit of capital. Largest share of capital will have to be allocated to basic heavy industry such as mining and metallurgical industries and heavy engineering industries producing produers' goods. This would leave on balance a very small share of investible funds for use in light and secondary industries.

The Criteria

It must be clearly borne in mind that the criteria for efficiency of producers cannot be the same in an overpopulated and an underpopulated country. When labour is scarce the primary requirement is to save labour.

* Domar, Ibid., p. 222.

Labour saving techniques, therefore, necessarily add to the productivity of the country. The conditions are quite different in an ove rpopulated country; saving in labour not being an end in itself. What matters is the rise in productivity of the community as a whole. It is, therefore, necessary to develop tools of analysis for selecting techniques which will contribute maximum to the aggregate productivity of the community.

Alternative techniques employing capital with different intensity can be compared on the basis of ratio of capital invested to the net productivity. Net is defined as the value of produce at prevailing market rate *less* depreciation and value of goods consumed during the process of production. Preference would be given at any stage of development to techniques requiring equipment that can be produced indigenously. (As the country develops, better techniques can be progressively employed). It is also necessary to compare the capital invested per unit of production for different alternative techniques.

Productive Techniques

Share of capital allocated to different types of industries will be dependent on the nature of the industry. The optimum intensity of capital for any industry can then be defined as the intensity which requires capital per unit of production within the aggregate share allocated to it. The most productive technique is, therefore, one which yields highest *net* production per unite of capital at an intensity close to the

optimum.

Technique which enables exploitation of resources untapped so far will, also directly contribute to increased productivity. This will make a new range of products available. If exploitation of new resources can be attained by adoption of lower intensity of capital than by the corresponding conventional materials, benefit to the community will be still greater. Introduction of new materials will, however, entail change in the pattern of consumption of the community.

Technological development would, therefore, consist of :

a. perfecting techniques which are worked at the optimum intensity of capital so as to maximise the net productivity per unit of capital.

b. exploring new resources, introducing new materials, preference being given to materials that can be produced with lower intensity of capital than alternative materials in use.

Herein lies the singnificance of the advocacy of Amber Charkha and other processes which are labour-intensive and which, at the same time, would contribute to the enlargement of the total product. Of course, the process of development will entail a progressively higher intensity of capital involving continuous transformation of production techniques. This would require a dynamic and progressive from of economic organisation.

A Crisis Measure ?

We next turn to the second school of thought which accepts the so-called 'inefficient' labour-intensive technique as a crisis measure. This is presumably the stand taken by the Karve Committee. Such an apology for labour-intensive techniques is not needed. It can be conclusively proved that lowering of capital intensity is justified on grounds of development and capital formation *alone* and that the employment aspect is a second consideration. This is not the place to reproduce the technical arguments. A summary of the conclusions may, however, be given :

1. the main problem of any economy must be to increase as far as possible the production of producers' and consumers' goods.
2. a country aspiring for economic development must give priority to the increase in the production of capital goods.
3. reliance on 'improved' modern techniques would lead to less aggregate production, particularly of capital goods and unemployment. Mr. Power describes this stage as characterised by 'chronic inflation coupled with growing unemployment'.
4. if accelerated capital formation is defined as that allocation of given endowment of factors between different sectors, which ensures higher capital formation coupled with maximum production of consumers' goods, then it can be attained by adopting different technique combinations. For deve-

lopment purposes, use of labour-intensive techniques coexistantly then becomes a necessity.

5. analysis shows that reduction of capital intensity in the consumers' goods *alone* would not accelerate capital formation significantly. This has its own moral.

Capital Formation

The controversy over Ambar Charkha and Spinning Mills though, no doubt, significant in itself, loses its importance as compared to the problem of lowering capital intensity in the producers' goods sector. While attempts are being made to use labour-intensive techniques in the consumers' goods sector, surreptitiously highly capital-intensive techniques, such as heavy earth-moving machinery, roadmaking plant, heavy concreting plant, material handling equipment etc., are being introduced extensively in construction and heavy industries. It must, however, be realised that in certain cases it may not be technologically possible to lower capital intensity in the producers' goods sector unless corresponding labour-intensive methods are used in the consumers' goods sector. Though use of labour intensive techniques in consumers' goods industries would add to employment, the analysis reveals that lowering of capital intensity in capital goods sector would lead to greater capital formation as well as to increased employment. The Chinese mass mobilisation of labour for flood controls and such other capital projects can be appreciated in this context. It is unfortunate that the protagonists of labour-intensive techniques in our country have centred their attention exclusively only to consumers' goods industries to the neglect of others. The result is that in other sectors highly mechanised techniques are being used. This is doubly unfortunate for it is in these sectors that labour-intensive techniques contribute to the capital formation.

Empirical Verification

Though it appears to be plausible, *prima facie*, that lowering of capital intensity will be accompanied by raising of output capital ratio, empirical verification for the hypothesis is sought in two typical industries; viz., construction and agriculture.

In the construction industry, example of earth dam construction by two alternative methods is considered. The capital-intensive techniques consist of modern equipment using a mechnical excavating and loading plant (power shovels or loaders) and self-dumping heavy transport units. The alternate technique consists of motor trucks, where excavation, loading and unloading is carried out by manual labour. The production is valued at the cost of production by the highly mechanised process. The two processes are compared for a haul distance of one mile which is far beyond the range of haulage by simple manual labour. Statistics about the production are summarised below :

Particulars.	Heavy Earthmoving equipment. Rs. Lakhs.	Motor Trucks with manual labour. Rs. Lakhs.
Cost of plant	11,8	6,60
Construction Camp Storage		
Workshops etc.	1,5	2,25
Stock of spare parts	4,6	0,65
Total capital stock	17,9	9,3
Labour engaged	60	900
Capital intensity per worker	30,000 Rs.	1,030 Rs.

PRODUCTION COST

	Rs. Lakhs	Rs. Lakhs
Total cost of production over 5 years	44,6	54.6
Unit cost per 1000 cubic ft.	69.5 Rs.	82.5 Rs.
Value of production for 5 years	44.6 Rs.	44.6 Rs.
--do-- per year	8.9 Rs.	8.9 Rs.
Depreciation, Fuels, Tyres, Lubricants, Replacements per year	8.0 Rs. (90% of working cost of plant)	3.3 Rs.
Value added by the process per year	0.9 Rs.	5.6 Rs.
Output to capital ratio	0.05 Rs.	0.60 Rs.

The above comparison is for prevailing methods where no effort has been made to minimise the idle time of trucks during loading and unloading. It seems possible to greatly increase the output per shift, if same device is developed to pick up quickly skips or buckets loaded in advance. An analysis made of this possibility indicates that the output-capital ratio may then be raised to 0.90, that is by 50 per cent. Further possibilities of lowering cost of production by reducing the men-days for excavation, loading and unloading exist if the labour operations are rationalised with the help of time and motion studies.

America And Japan

In agriculture, comparision between the American and Japanese techniques is revealing. In Japan tillage is done by hand. The farmer has generally only one animal, as he cannot afford to keep more than one. The installed H. P. per worker in agricultural equipment is 0.04 (this amounts to 0.12 H. P. per acre) and the land available per worker is 0.3 acre. In spite of this, the production per acre is twice that in the U. S. A. where the average crop land per farm worker is 40 acres (excluding pasture amounting to 65 acres per farm worker) and the installed H. P. per worker is 5.5 and 1.2 H. P. per acre of crop land. The above figure of installsd H. P. consists of that for tractors and trucks only, excluding other farm equipment. Japanese high productivity is primarily due to the intensive use of organic and artificial fertilisers, improved selection of seeds, better crop production, better land management, improved rotation, inter-culture etc. Most of these measures are labour intensive.

Promising possibilities exist of the supplementation of manufactured goods, by products of relatively labour intensive methods, e. g., steel by bamboo and timber products, cement by lime, chemical fertilisers by organic manure etc. Extensive research in different fields of industry would reveal the possibilities of development of efficient manually operated, animal powered or small power tools. It is believed that this analysis provides adequate empirical verification of the measures proposed.

Co-Existence

A community anxious to develop rapidly must adopt an accelerative factor allocation. It must choose in any sector such techniques or technique combinations which collectively, employ fully the respective factor allocated, labour and capital. Therefore coexistence of apparently inefficient labour-intensive methods with modern highly capital-intensive techniques is not merely desirable socially to secure full employment, but is essential for accelerated capital formation. It is for the planning agency to work out the respective allocations for capital and consumers' goods sectors and adopt policies which could lead to full utilisation of the respective allocation. Within a sector, allocations will then be determined *inter se*, with due consideration for existence or otherwise of alternative labour intensive techniques. Though the production targets for different industries would be based on requirements of balanced growth and in accordance with the development priorities, it would be desirable to allot greater capital to industries where alternate labour intensive methods do not exist. Where such alternative techniques exist, the industry must work on a short ration of capital even if the cost of production is increased.

Research Work

Though, in the short run only the

available techniques can be used, technological research must be directed towards development of techniques with output/capital ratio which would ensure full utilisation of the allocated factors. However, it must be noted that the output capital ratio does not necessarily bear a fixed relation to capital intensity.

It is technologically possible to raise productivity at constant capital intensity by improved organisation, reduction of lost time and delays and more economical use of materials, fuel and power. It would, therefore, be incorrect to presume that improved productivity of capital can be attained by merely adopting labour-intensive methods or that lowering of capital intensity is inherently inefficient.

It is necessary to initiate intensive research in various fields to explore possibilities of lowering capital intensity, improving output-capital ratio with minimum rise in cost of production. Such research would consist of process analysis and product analysis. Process analysis would consist of breaking up production processes into component operations and exploring possibilities of substitution of capital by labour in the various component operations. Among the alternative substitution possibilities, we should accord high priority to those which result in minimum rise in costs and maximum savings in capital. Similarly the products required for manufcture should be examined with a view to substitute them by alternate products, involving lowered capital for production. It may not be out of place to suggest that the construction industry offers a very promising field for such a study. It is particularly significant because, according to Leontiff's study, 62 per cent of the fixed capital stock in U.S.A. is derived from the construction industry.

REFUSE MILL CLOTH

"Khadi has a big mission. Khadi provides dignified labour to the millions who are otherwise idle for nearly four months in the year. Even apart from the remuneration the work brings, it is its own reward. For, if millions live in compulsory idleness, they must die spiritually, mentally and physically. The spinning wheel automatically raises the status of millions of poor women. Even though, therefore, mill cloth were to be given gratis to the people, their true welfare demands that they should refuse to have it in preference to Khadi, the product of their labours." — Bapu

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THE CHALLENGE OF THE SECOND FIVE YEAR PLAN

By
P. S. NAYAK B. A., B. L., F. I. I. B

The world no longer believes that ignorance, want, dirt and disease are inevitable and if we are to take our rightful place in the world of today we have the stupendous task of compressing within, say, 20 years what Western nations took 200 years to accomplish. We have made a brave start. With strong hearts and willling hands we may yet accomplish the impossible. An unbiassed British observer* finds that in the few short years since independence, we have already laid the foundations of an economic revolution without any sacrifice of financial stability. He observes a new dynamism in Indian Society in the poise buoyancy and self-confidence noticeable among younger people, particularly among those in responsible positions in the execution of our big public works and development schemes.

Capital Goods Industry

The major objective of our Second Five Year Plan is the establishment of a sound and adequate capital goods industry and the major source of its resources is borrowings plus deficit financing. This is the challenge of the Second Plan which we have to face or go under; we have to ensure that the target of borrowing is reached and ensure that deficit financing does not degnerate into a runaway inflation. A fully developed economy, which is our goal, presupposes the establishment of a first class capital goods industry in the country. Our present pressing need is investment on a large scale in the capital goods industry, and such investment can be made without detriment to the economy when there are sufficient savings to meet the needs both of the consumption goods industries and the capital goods industries at the same time. But savings are naturally meagre in an underdeveloped country. Russia at the time of the October Revolution was in a stage of economic development comparable to ours. In its First Five Year Plan it set itself to establish a capital goods industry and, being a totalitarian State, it could take certain action which is abhorrent to a democracy.

Compulsory Savings:

If our economy is not to be disturbed

* India, A Survey for British Industrial Firms by Mr. Stephen Garwin, formerly of the Indian Civil Service and published by the Federation of British Industries.

we have to take other steps. We have to increase savings and at the same time channelise them. Our Second Plan aims at increasing national savings, from the present 7.3 per cent to 11.7 per cent of the national income. In the developed economies of the West, savings run from 17 per cent to 20 per cent of national income; but for us even 11.7 per cent is rather high and, to channelise them into securing the objectives of the Plan, some degree of compulsion will be necessary at one stage or another. Here are a few suggestions which broadly indicate how this could be done:

(1) All those who pay incometax may be made to contribute a portion of their net income to Government loans : such contributions being collected along with incometax. These contributions may vary with incomes, say 2 per cent at the lower rungs of income going up to perhaps even 50 per cent in the highest rungs, with an option to the larger cotributors to invest either in Government loans or in approved new investments in the private sector.

(2) All landowners may be asked to pay, along with land revenue, say 2 annas per rupee of land revenue payable by them.

3) That some 2 annas in the rupee from income from shares and securities be collected at source.

The figures in every case above are tentative and all that is suggested is that in an economy like ours a certain amount of compulsion will be necessary to achieve the high targets we have set before us in the Second Plan. The advantage of an approach such as this will be to channelise savings into desirable and planned investment and to help in reducing consumption to curb inflation.

Consumption Goods

In an underdeveloped economy with a poor savings potential, the danger of investing a considerable amount of savings in the capital goods industry lies in the resulting drying up of the flow of investment into the consumption goods industry and the consequent curtailment of production of consumption goods, leading to a steep rise in prices. If savings are not sufficient and/or are not properly channelised and it becomes necessary to finance the capital goods industry from forced savings, there is the additional imminent danger of an acute inflation, for then money depreciates, cost of capital goods increases, fresh money has to be created and a whole vicious spiral is set in motion. If this is to be avoided, without at the same time curtailing the investment in the capital goods industry, the quantity of consumption goods available should be concurrently increased,

One way of doing this is by getting aid. The recent agreement with the United States under which will we soon be importing 400 million dollars worth of wheat, rice, and cotton comes under this category. Another method is encouragement of production of consumer goods by

adoption of labour-intensive methods requiring small capital investment. Several schemes of production of cosumer goods by this method will be tried during the Second Plan period and of these the Ambar Charkha programme deserves special mention. Nothing else can give gainful occupation to so many, so quickly and on so low a capital investment. It may be recalled that Mahatma Gandhi's upper limit of Rs. 150/- for charkha was fixed by him in the condtions then prevailing, when no help could be expected from the then Governments. Today conditions, however, are different. The Central and State Governments have promised every help and have ear-marked large sums for its propagation. Apart from the question of Government help, it is also not correct to think that a costlier machine will not be marketable. Have not the Sewing machine companies proved that, when a useful machine gives value for its price, hundreds of thousands can be sold at several hundreds of rupees a piece, even in a poor country like ours ?

Improved Tools

The condition that the mechanism of the charkha should be so simple as to be capable of being repaired even by the village blacksmith, does not apply in today's circumstances. When there is a sufficient number of charkhas in any one area, there is bound to spring up a class of mechanics capable of repairing them, however complicated their mechanism. Take for example the case of a watch. Its mechanism is not simple. Even to this day we have no factory in India manufacturing watches. Yet in practically every town, however small, there is a watch repairer. Surely the Ambar Charkha can never be as complicated as a watch. Why should we be diffident then about getting a sufficient number of competent persons to repair an Ambar Charkha? Let us offer the rural population a first class charkha yielding first class yarn, a machine that will give them an income of about Rs. 1/8/-per day. There would then be no need to do much propaganda to sell that charkha. It is encouraging to learn that the Research Section of the Khadi and Village Industries Board has already applied its mind to this problem of improvement of the Ambar Charkha.

Pressure on Land

The increase of production of consumer goods in the rural areas will have another beneficent result—the lessening of the present terrific pressure on land. In pre-British days every town in India was prosperous and in every village there was full employment, and sufficient land for everyone by the standard of primitive agriculture then practised. Population was kept in check by war, famine and pestilence. There was a spinning wheel in every home and a large percentage of the population got employment in industry and handicrafts. India exported its spices, its silks, its muslins, and its handicrafts to the far ends of the known world.

The beginning of the British conquest coincided with the beginning of the Industrial Revolution in England. In part, the Industrial Revoluation there was made possible by the wealth taken from India. England which had been highly protectionist, suddenly plumped for free trade and *laissez faire.* This combination killed the Indian village economy that had survived countless ages. Millions lost their traditional means of livelihood and were thrown back on the land. Added to this, there was a steady increase in population, owing to absence of wars and due to the measures taken to minimise the effect of famines. This additional population also pressed on the land while agricultural practices still remained primitive. The consequence was not only under-employment and unemployment, but also under nourishment as, thanks to the *laissez faire* policy, no efforts were made by the Government to improve the condition of the people or to increase agricultural yields. Beginning with the last decade of the nineteenth century, India also began to establish modern industries; but this, instead of helping employment, still further increased unemployment in rural areas. As a result of all these, the pressure on land has become so great that there is urgent need of finding employment for an estimated 15 millions in small-scale and village industries and urgent need also of providing the agriculturist with a subsidiary occupation during the 4-5 months of the year that he is normally without work.

Extension Service

The Planners have not been unmindful of the necessity of meeting this need. After independence, the Government lost no time in inaugurating the community Development Programme and now, in the Second Plan period, a new Extension Service is to be introduced in the Community Development areas with the object of helping the villagers in setting up new industries with aid provided at both the production and marketing stages. This extension service will bring the results of research to the villager and carry his problems to the laboratory for solution. It will ensure proper supply lines for raw materials, and it will assist smallscale and village industries with credit and with marketing facilities. The foundation, to be well and truly laid, however, requires the training of thousands of workers at all levels and this unspectacular work is being pushed through with great energy. In addition, 26 Pilot Projects have already been started and an intensive programme of development for the small-scale and village industries has been drawn up. Of the 26 Pilot Projects, eight will also have industrial estates where concerted efforts will be made for the development of small-scale industries. There will also be 15 units of 3 mobile vans each taking machines and know-how to the door of the village craftsman. With the experience gained in these Pilot Projects, the

service will be further extended and in the next five years it is expected to play an increasingly important and useful role in promoting small-scale and village indutries in the rural areas.

But–and this is a large *but*–the increase should not end with the increase only of industrial production, however helpful it is in itself. There should also be a parallel increase in agricultural production. Better methods of cultivation should be taught and yield from land improved. Thus, as greater employment has been secured and the pressure on land lessened, the large increase in agricultural and industrial production will resist the upward pressure of deficit financing on prices.

The Advantege

There is yet another advantage in increasing production in rural areas. If the money from deficit financing goes into this non-monetized sector of our economy, it will have far less effect on prices and wages than when the additional supply is diverted into organised industry and commerce through banking channels. That the deficit financing under the First Plan has not had the effect that was at one time feared is partly due to this reason. Under theoretical conditions, when all transactions are put through banks and banks maintain a 10 per cent cash reserve, bank deposits will reach a total of ten times the currency in circulation. In no country, however, is this theoretical standard attainable. In England, where banking is far advanced, bank deposits have consistently been about four times the currency in circulation. In India, with its large non-monetized sector and banking far less advançed, bank deposits have been less than the currency in circulation and even during the last two years of the First Plan when there was considerable deficit financing, deposits have not grown even in proportion to the increase in currency. This indicates that a considerable portion of that money has gone into the nonmonetized sector.

Rural Finance

It should, however, be noted, that an increase in industrial and agricultural production in the rural areas is not by itself sufficient. There are still the formidable obstacles of rural finance and marketing to overcome. Our organised industry and commerce find little difficulty in securing either finance or marketing facilities. To take an example, a person starting an industry places an order overseas for supply of the needed machinery and he need find very little money for this purpose, as banks will open letters of credit for him on practically no margin at all. When the machinery arrives, he pledges it and the factory to get some advance from his banker. He then goes on to purchase raw materials which again he pledges and gets back on trust for being manufactured and the manufactured goods go back into pledge. Then when he has sold

these goods, he draws a bill on the purchasing wholesaler and gets his money from his banker by discounting his bill. At this stage, the commodity has entered commerce. The wholesaler has purchased and got possession of the goods not by paying cash, but by accepting the manufacturer's bill falling due for payment perhaps in 60 days or 90 days, within which time he sells the goods to a retailer on whom he draws a similar bill, with the proceeds of which he pays the manufacturer's bill when due. The retailer in his turn has again two to three months' time to sell and pay for the goods. On the marketing side, too, commerce and organised industry have the advantage of highly specialised services and of large warehouse facilities at the docks and with banks in every town.

In striking contrast to this, stand the agriculturist and the village artisan. They have no capital. They have little credit. They have to do their own selling to a village *bania* who provides them with money and buys their produce, both on his own terms. More-over whatever little credit they have, the agriculturist and the village artisan have to utilise for meeting their unproductive necessities which are of a pressing nature. Our debt relief legislation has not been helpful to them. It has, on the contrary, crippled their credit, and in many cases they have been forced into the ignominy of colluding with their creditors to dupe the very law that was meant to protect them. Unless this problem is solved there is very little hope of improving the face of the village. The supply of credit, the supply of raw material, of seed and of manure, the provision of wareheuse facilities for the produceof the farm and the workshop and the orderly marketing of produce are crying needs.

Co-operative Marketing

For promoting rural development, the co-operative agency stands supreme, and during the Second Plan period, it is proposed to help the co-operative movement develop sufficient organisational and financial strength of its own, to meet "the powerful competition of vested interests" and to expand according to the growing needs of economic development. The Second Plan provides for the establishment of 1800 primary co-operative marketing societies at important mandi centres, societies that will help the producer to escape exploitation by middlemen, to get the most favourable price for his produce, to store it and if necessary, to obtain a loan on its security. These societies will also act as the main stockists, and channelise the distribution of the requirements of the agriculturist such as seed, fertiliser, implements etc.

And Warehousing

There is also an ambitious programme of development of warehousing. The Agricultural Produce (Development and Warehousing) Cooperation Act, 1956, has been enacted for this purpose and provision has been made in the Plan for the establishment of about 100 warehouses by the Central Ware-

housing Corporation and 250 warehouses by the State Corporations. At the recent conference of States Ministers for Agriculture and Co-operation, it has been decided that the target for co-operative marketing and warehousing should be attained by the end of the 4th year of the Plan period through a process of accelleration. This chain of warehouses will facilitate the development of commercial credit on the security of warehouse receipts. Further, the storage facilities of a substantial order provided by them are expected to be extremely useful in the context of the Government's price policy, whether of combating inflation or of stabilising agricultural prices.

Rural Credit

The one field in which the Co-operative agency may not be able to meet the full needs of the agriculturist, the village artisan and the small industrialist is in the provision of adequate credit. The Report of the All India Rural Credit Survey Committee reveals that in the field of rural credit the money-lender-cum-trader is still supreme; that co-operatives supply a bare 3 per cent of current borrowings, with the Government supplying a like proportion. It would, therefore, be a wise step to enlist the co-operation of commercial banks in augmenting the credit supply in order to eliminate the usurious money lender.

Commercial banks in the West are playing a predominent part in this field. At one time granting loans only on the security of land, they are now specialising in and extending credit in other ways. There are at presesent more loans for agricultural production, for the maintenance or operation of the farm as a business, for the purchase of seed, manure and farm equipment, and loans on the security of farm produce. It is recognised that most agricultural loans are short term advances for a season's duration and that for a banker whose eyes should never stray from the liquidity of his loan portfolio, they represent a useful and profitable field for short term lending.

Our commercial banks fight shy of this business at present because of the supposed huge losses they might have to incur. It is, therefore, suggested that, as in Japan, the Government should guarantee the banks against losses, say to the extent of a third of every loan advanced, charging an adequate guarantee commission. If, in addition, these loans are also made eligible for securing advances from the Reserve Bank, at least in exceptional cases, much of the hesitancy of our banks should disappear.

Kanara Experiment

Three commercial banks in the district of South Kanara, on the West Coast, whose combined resources near about twenty crores of rupees, have done some pioneering work in this direction though, just at present further expansion has been temporarily halted

in order to enable the banks to adjust themselves to the circumstances of the Bank Award. One of these banks particularly, has 24 branches in rural centres besides its seven ragular branches in the towns of the district. In the rural branches, loans are granted to villagers to meet their various needs; but no individual advance amounts to more than a few hundred rupees. The villager is also given every encouragement to save even in small amounts of 2 annas at a time and what is more gratifying is that, under one of its deposit schemes, even these small amounts are collected from him without waiting for him to come to the bank. Eligibility for a loan is the productiveness expected from the use to which the proceeds of the loan are put, rather than the land and other assests possessed by the borrower. Perhaps once in a while, the borrower sells his crop and disposes off the proceeds to a more pressing creditor; but the general exeperience of all the banks is constently favourable with an extremely small loss ratio, partly because of the precaution that is taken of having, in addition to the borrower's note, the guarantee of one of his friends. This provides not only safety to the lender, but also acts as a brake against the borrower diverting the proceeds of a loan to unproductive uses, as the friend who guarantees the loan is encouraged to look after this in his own interest.

The villager in India is honest. He is intelligent and industrious. But he has been neglected all along. Every encouragement, every facility, has been given to the townsman. In education, in sanitation, in medical relief and even in facilities for industrialisation what little has been done has been more for the dweller in towns than for the villager. Now, if we do something to raise the level of income of the agriculturist and the village craftsman, we will not only be doing them justice in a small measure; we will also be meeting the challenge of the Second Five Year Plan.

HANDICRAFTS OF INDIA

By
Kamaladevi Chattopadhyaya

The story of Indian Handicrafts goes back somewhere into the mists of antiquity when the story of man himself first begins to be written or articulated. The capacity of the hands to create was respected, even reverenced. Thus the Indian Handicrafts thrived through the ages helped by a vigorous folk tradition, a benign culture, and an age when individualism was cherished, and detail and precision valued. The painstaking labours of India's handicraftsmen found fulfilment in the unique objects of beauty they made. In time these went beyond the confines of their centres of production and spread out to all corners of India and the world. The handicraft manufacturers of India were prized for their perfection of craftmanship, excellence of design and form and an unsurpassed definition of colour. Gorgeous brocades and silks, gossamer muslins, carpets, pottery, brass, bronze, copperware, silver, ivory and sandalwood carvings were carried as treasures along the Silk Route by camel caravan to Samarkand, Baghdad and to the farthest out-posts of the vast and rolling Mongolian Empire, to Egypt and Africa in the West and to the warm islands of the Indonesian Archipelago in the East. The Court of Solomon and of Genghiz Khan and the Palace of the Caesars received these objects of beauty as tribute from vassals or gifts from friends.

The Decline

In course of time, however, constant invasions and internal disorders, changes of political and historical fortune, began to affect the development of our crafts. Cottage crafts in India had rested on two demands :

(1) The comparatively plain objects of utility which served the needsof the common people, mostly in or around the centres of production.

(2) The more sophisticated products upon which much time and labour was spent, catered to the aristocracy and nobility of the land or were exported as choice gifts and objects of art.

Three centuries ago, new foreign forces began to influence the course of events in India and her history. The British gained the upper hand over her other rivals and gradually subjugated the country. For the first time, India became the base for the supply of raw materials rather than manufacture of finished

goods. In order to protect manufacture in Britain, the British set about deliberately destroying cottage crafts and imposing trade restrictions. Gradually our domestic arts and crafts deteriorated and, in course of time, many of them declined. The Industrial Revolution and the rise of large-scale industry with its techniques of mass production and the growth of imperial monopoly capital all but dealt a death blow to indusries and crafts which were the very opposite of machine production. New economics began to displace the old and the craftsmen went to the wall or had to turn to the machine itself just to be able to live. Such of the industries as could survive were further driven into a shrunken market of the very rich only. The end was in sight.

The emergence of Mahatma Gandhi as the leader of a new renaissance movement, and his powerful support for the cause of revival and rehabilitation of Khadi and other Village Industries arrested the speedy downward course of our handicrafts. Of his constructive programme these formed an integral part. In 1947, when India became free, the new Indian State found, among the many problems before it, the problem of putting a stop to the final disintegration of handicrafts, of giving them a legitimate place in the national economy and of helping them to organise themselves in a manner capable of meeting the changing trends and conditions.

The Handicrafts

The development of handicrafts is entirely different from that of village industries or small-scale industries. Each craft is highly complicated, involving numerous processes and is very individualistic and local. Thus, for example, hand-printing in Rajasthan is quite different from printing in Andhra. Crafts differ from region to region. They have their traditional ways of production, their own designs, colour, shapes and so on. A single plan cannot be applied wholesale all over the country as in the case of chakkis, cart-wheels, charkhas or carpentry and smithy tools. The craftsmen are scattered - some families here, some families there. In some cases, the craft is reduced to a few people who are lost in the interior villages and have to be sought out. Each craft and each centre needs careful study and understanding before new life can be injected into it. Therefore, in the very nature of this industry, there is infinite need for patience and tireless service, before any results can be achieved. This great heritage of ours belongld to another age and its flowering, as we have seen, required another atmosphere, a totally different pattern of living and tempo. But for the new awareness of the beauty of handicrafts and their ability to bring about a full affirmation of our lives, handicrafts in many ways are out of tune with our modern living and approach. Even though large numbers of people are engaged in handicrafts all over India, they are never found in large concentrations. The

tools that produce these handicrafts are modest, unostentatious. The development of handicrafts cannot be measured through spectacular structures or noisy machines. They speak of an age when dignity lay in silence and beauty in subtlety.

Role of The Board

When the Handicratts Board was set up, it was asked to advise Government on the problems of the industry and, particularly, how to improve and develop production and promote sales in India and abroad. It was also asked to advise Government on grants and loans to be given to State Governments, private organisations and institutions to develop and improve handicrafts. The Handicrafts Board set about this job by formulating programmes of development, research and prmotion; procurement and supply of raw-materials; introduction of better techniques and equipment; improvement in design and introduction of new patterns; prescribing standards of quality; training of personnel; conducting surveys and collecting statistical data; publication of guide books and pictorials; setting up of museums for displaying and popularising handicrafts; and promotion of sales organisations in India and abroad. The over-all object, therefore, is to see that better handicraft goods and cheaper are produced and that the worker also gets a fair return for his painstaking labour, through proper marketing and trade channels.

A Wide Range

Our handicrafts are numerous and cover a wide range of articles which combine beauty with utility. For example Indian toys are a part and parcel of our folk art. Unlike the toys of the West, they are mostly representations of life, but so made as to stimulate in the children in infant fancies. With brilliant hues and beautiful dresses, they are made of light wood or baked clay or out of cloth.

The textile industry in our country is perhaps the most famous of all. It includes cotton, wool, and silk spinning, weaving and dyeing and printing. The marvellously woven tissues of India are justly famous the world over.

Each century has influenced and contributed towards the rich tradition of Indian jewellery. Apart from the exquisitely patterned and hand-worked traditional gold jewellery with precious stone-settings, both silver and semi-precious stones are gaining popularity as costume jewellery. The craftsmanship is of a very high standard and the designs are purely Indian. They are inexpensive to buy and a delight to both the wearer and the beholder.

The history of the metallurgical arts in India goes back to over 5,000 years. Today craftsmen produce objects of pure artistic merit worked in copper, bronze, brass and bell-metal, as well as utilitarian goods of everyday household use.

Wood carving of all kinds has been a highly developed art in India for a long time. The skills displayed in the

carving on temple-doors and monuments, have been executed with the same attention to detai) as to their exquisite charactar.

Ivory carving is an outstanding craft of India practised in many States, and is in a class by itself. The craftsmen use only the simplest of tools—a knife, a chisel and a few files—to shape and carve articles of unbelievable beauty and delicacy. They cover a wide range from splendid specimens of dancing figurines expressing various moods, to such objects of downright utility like buttons and links, necklaces, salt spoon-sets, perfume boxes and cigarette holders.

The Mat

Essentially a native creation and an indispensable utility item of village India, the hand -woven mat has in recent times begun to beautify the most sophisticated homes in Indian cities. For sheer cool comfort, pleasing colours and decorative quality, our mats have few equals and none superior. Today a string mat frames a painting, or forms an unusual lamp shade. There is mat used as the cover for a divan, or as decorative and silky mat as a wall hang. ing or adds colour to floors and makes for originality in any home.

Basket work is another of our simple and attractive crafts and is now finding its way more and more into the modern homes.

A riot of colour or dignified hues, grace of lines or bold modernism characterise some of india's best contemporary pottrey. But here again, like most other Indian handicrafts, one will find a combination of beauty and utility. Keeping pace with the changing times and the requirement of people, the Indian potter has added many varieties to the traditional shapes and designs to improve and personalise pottery.

Thus, the handicrafts of India are numerous and have touched every aspect of life-the individual,the home and society. From the state of decline into which they had fallen, new efforts are now being made to rescue and develop them. In these efforts, it is significant, the State is playing a leading role. The experience of the three and old years during which the All India Handicrafts Board has been executing various schemes for the reorganisation of the handicrafts industries, is that the ancient skills are still there and given adequate impetus, technical and research guidance and assured markets, the handicrafts industries can still set the fashion by the adoption of Indian cultural patterns to the changing new conditions.

QUESTIONS IN PARLIAMENT

National interest in the activities of the All India Khadi and Village Industries Board and its programmes of development is generally reflected in the Lok Sabha. Numerous questions are asked and replied during its sessions. Below are given some of these question and answers given by the Government ;

26th May 1956

QUESTION: Shri Biren Dutt : Will the Minister of Production be pleased to State :

a) the amount spend during 1955-56 through Khadi and Village Industries Board in Tripura; and

b) the concerns that have received the aid ?

ANSWER : Parliamentary Secretary (Shri R. G. Dubey) :

(a) & (b) The following funds were disbursed to the various institutions in that State :-

i. Bamutia Multipurpose Co-operative Society Limited	Rs. 6,500
ii. Pallimangal Senior Basic School, Khayerpur	Rs. 500
iii. State Khadi and Village Industries Board for holding exhibition.	Rs. 10,000
Total	Rs. 17,000

x x x

24 th July, 1956.

QUESTION:Shri Raghunath Singh: Will the Minister of Production be pleased to state the number of emporia opened in foreign countries by the All India Khadi and Village Industries Board ?

ANSWER Minister (Shri K. C. Reddy) : No shops or emporia in foreign countries have been opened by the All India Khadi and Village Industries Board.

x x x

9th August, 1956

QUESTION;Shri Ram Krishnan: Will the Minister of Production be pleased to state the steps taken or proposed to be taken by Government for giving representation to State Governments on All India Khadi and Village Industries Board to achieve co-ordination between Governmental agencies as recommended by the two-day-Conference of State Ministers and representatives of All India Boards held in Delhi during the third week of June, 1956?

ANSWER: Minister (Shri K. C. Reddy)

After the Khadi and Village Industries Commission Bill which has already

been introduced in Parliament, is enacted into law, a new Advisory Board for Khadi and Village Industries will have to be constituted under the Statute. At that time, the recommendation of the Inter-State Cottage Industries Conference will be taken into account.

x x x x

14th August 1956

QUESTION : Shri Dhuseya : Will the Minister of Production be pleased to state:

a) the basic minimum pay and Dearness Allowance of a sales-man and clerk respectively in the Gramodyog Bhavan, Delhi;

b) whethar it is a fact that every sales-man and clerk is required to work as apprentice; and

c) whether it is also a fact that sometimes new persons are appointed as salesmen without any apprenticeship ?

ANSWER:(Shri K.C. Reddy) Minister:

a) The basic minimum pay for both the salesman and the clerk is Rs. 60 in the scale of Rs. 60-3-90-EB-5-140 plus allowance of Rs. 25/-

b) Not Necessarily:

c) Yes, persons possessing previous experience of Khadi and Textile Industry generally are appointed directly without having to undergo any period of apprenticeship.

x x x

20th August, 1956

QUESTION: Shri Dhusiya: Will the Minister of Production be pleased to state:

a) how many dyeing and printing houses have been opened till today since the Khadi Board has come into being;

b) where they are located:

c) how many artisans are employed in each house: and

d) what is the minimum pay for a qualified artisan ?

ANSWER : Minister (ShriK. C. Reddy):

a. No new dyeing and printing houses have been opened since the coming into being of the Khadi and Village Industries Board, viz., since February 1953.

b.
c. } do not arise.
d.

x x x

14 th August, 1956

QUESTION : Shri. Ram Krishnan : Will the Minister of Production be pleased to State whether the Action Committee at the State level to secure co-ordination between different organisations at State level has been set up as recommended by the Conference of State Ministers and representatives of All India Boards dealing with cottage industries held at Delhi during the 3rd week of June ?

ANSWER : Minister (Shri K. C. Reddy)

Not yet, Sir.

x x x

QUESTION: Shri Deogam : Will the Minister for Prodouction be pleased to state :

a) whether the Government of Bihar have submitted schemes for the development of the following village industries during the year 1956-57 (1) Khadi, (2) Ghani Oil Industry, (3) Hand Pounding of Rice, (4) Bee-Keeping, (5) Hand-made Paper, (6) Cottage Match Industry and (7) Soap-making with Non-edible oils; and

b. if so, the amount sanctioned either by way of loan or otherwise under each scheme ?

ANSWER : (Shri K. C. Reddy)

a) Yes Sir, except for the Khadi Industry.

b) These schemes are under examination.

x x x

1ST SEPTEMBER, 1956

QUESTION: Shri S.V. Ramaswamy and Shri. Thimmaiah.

Will the Minister of Production be pleased to state:

a) the State-wise allotment of Ambar Charkha under the new textile policy; and,

b) the proposed State-wise increase in powerlooms ?

ANSWER ; Minister (Shri K. C. Keddy:

(a) & (b): No decision has yet been taken.

x x x

8TH SEPTEMBER, 1956

QUESTION: Shri. Lakshmayya: Will the Minister of Production be pleased to state :

a) the amount of loan and subsidy given to the Government of Andhra during 1951-52 to 1955-56 for the development of Khadi and Village Industries; and

b) whether the amount given has been fully utilized or any amount has lapsed during any of the years referred to above ?

ANSWER : Minitser (Shri K. C. Reddy) :

(a) & (b); A statement is placed on the table of the House.

x x x

Statement showing the amounts sanctioned and utilized by the Government of Andhra for the development of Khadi and Village Industries by the Central Government during 1951-52 to1955-56 referred to in the reply is given below :

	Grant (Rs.)		Loan (Rs.)	
	Amount sanctioned	Amount utilized	Amount sanctioned	Amount utilized
1951-52 1952-53 1953-54	..............Nil..............		..............Nil..............	
1954-55				
Khadi	.... Nil..............		..............Nil..............	
Village Industries				
Palm Gur	50,050/-	48,266/14/-	..............Nil..............	
Total (Rs.)	50,050/-	48,266/14/-	..............Nil..............	
1955-56				
Khadi	..............Nil..............		..............Nil..............	
Village Industries.				
Handpounding of rice	9,500/-	2,375/-	..............Nil..............	
Pottery	18,425/-	4,604/4/-	2,225/-	....Nil....
Gur and Khandsari	60,900/-	15,225/-	..........Nil..........	
Village Oil	..........Nil..........		20,000/-	....Nil....
Total (Rs.)	88,825/-	22,204/4/-	22,225/-	....Nil....

12th September, 1956.

QUESTION: Shri Dhusiya: Will the Minister of production be pleased to state:

(a) the policy of Government with regard to the opening of new dying and printing centres;

(b) how many dyeing and printing Centres were running before the inception of the Khadi Board and what was the number of persons employed in each respectively (throughout the country);

(c) the circumstances in which the dyeing and printing of Khadi has been allowed in mills and since when ?

ANSWER : Minister (Shri K. C. Reddy) :

(a) Decision in regard to this matter is left to the discretion of the All India Khadi and Village Industries Board who are mainly responsible for determining the size and direction of operations incidental to the development of the Khadi Industry.

(b) 22 dyeing houses. Printing was arranged by the institutions through hand-printers where available. Information regarding persons employed in dyeing houses at that time is not available.

(c) Dyeing of Khadi supplied against Government orders is done at mills as such Khadi has to conform to certain standards of colour and shade laid down by the Directorate General of Supplies and Disposals, and the dyeing houses for Khadi are not equipped to undertake such work. Printing of some Khadi is done at Bombay by hand-process in the premises of certain mills where facilities in regard to trained art-printers are available.

x x x

QUESTION:Thakkur Jugal Kishore Sinha: Shrimati Kamlendumati Shah:

Will the Minister of Production be pleased to state :

(a) whether an application has been received by the All India Khadi and Village Industries Board on behalf of Vishva Mitrata Gram Udhyog Sangh of Bihar State;

(b) if so, when the application was received and the action taken thereon; and

(c) whether the Sangh has supplied the details as asked for by the All India Khadi and Village Industries Board in 1955 and further action taken thereon ?

ANSWER ; Minister (Shri K. C. Reddy) :

(a) Yes.

(b) and (c) This institution which asked for sanction of funds in an informal letter dated 9.3.55 has not furnished details of its scheme and the estimated requirements in spite of the fact that it was requested twice by the Khadi Board to do so. A reply is still awaited.

x x x

QUESTION ; Shri Dhusiya:Will the Minister of Production be pleased to state:

(a) Whether the Khadi Board has ever demanded any amount of money exclusively for the development of dyeing and printing works.

(b) what amounts have been given as grants or loans for the same since its inception year-wise; and

(c) how those amounts have been utilised ?

ANSWER : Minister (Shri K. C. Reddy) :

(a) The Board's demand has been for the development of printing only.

(b) The following amounts have been sanctioned as grants :

Year	Amount
1954-55	Rs. 3,000
1955-56	Rs. 5,000
1956-57	Rs. 1,50,000*

* Note : The amount sanctioned for the year 1956-57 includes printing and other schemes. The total amount sanctioned has not been apportioned between printing and other schemes.

(c) In Andhra, for training in Kalamkari printing.

x x x

QUESTON:Babu Ramnarayan Singh Shri Asthana :

Will the Minister of Production be pleased to state:

(a) whether the employees of Khadi Gramodyog Bhavan, New Delhi, have been put in a fixed grade or their salaries are fixed by the management;

(b) whether All India Khadi and Village Industries Board has framed any sort of grade for its trading account employees; and

(c) if so, whether these grades are applicable in the case of Khadi Gramodyog Bhavan, New Delhi, employees ?

ANSWER : Minister (Shri K. C. Raddy :

(a) & (b): Various grades have been fixed for the Khadi and Village Industries Board's employees in trading operations. The staff are placed in appropriate grades according to their experience and qualification.

(c) These grades have been applied to the employees of the Khadi Gramodyog Bhavan, New Delhi, also.

x x x

QUESTON: Babu Ramnarayan Singh Shri Asthana.

Will the Minister of Production be pleased to state :

(a) Whether any amount, including insurance charges, has been spent by Khadi Gramodyog Bhavan, New Delhi, when they participated in the Congress Exhibition held at Amristsar this year;

(b) whether any advance budget was prepared before hand and if so, the difference between estimated budget and actual expenditure:

(c) whether the Khadi Board gave any grant to Khadi Gramodyog Bhavan, New Delhi, for the purpose; and

(d) if not, the reasons therefor ?

ANSWER : Minister (Shri K. C. Reddy)

(a) yes; the expenditure on insurance against fire and other accidents was Rs.. 3,250/-

(b) The actual expenditure on decoration and display amounted to Rs. 10,518/8/6 against the budgeted expenditure of Rs. 10,000/-

(c) and (d) The Bhavan is run by the Khadi Board. The question of a separate grant does not arise.

x x x

QUESTION: Shri Bheekha Bhai: Will the Minister of Production be pleased to state:

a) whether Government have any proposal under consideration to introduce more Ambar Charkhas in Scheduled areas; and

b) if not, whether Government have assessed the possibilities of introducing Ambar Charkha in the backward areas ?

ANSWER: Minister (K. C. Reddy):

(a) & (b) : The introducion of Ambar Charkhas is usually made by establishing Parishramalayas which are generally opened in areas where response is satisfactory. The programme, howevr, has only been taken up recently. If any scheme is received for opening Parishralayas in Scheduled areas from the State Governments, it will receive due consideration.

x x x

QUESTION: Babu Ramnaryan Singh: Shri Asthana: Will the Minister of Production be pleased to state how much amount has been given as grant by Government to All India Khadi and Village Industries Board for Publicity during 1956-57 so far and how that amount has been utilised by the Board so far ?

ANSWER : Minister (Shri K. C. Reddy) :

In 1955-56 and 1956-57, Rs. 12,53,697 and Rs. 13,38,150, respectively, have been sanctioned to the Board for publicity. These funds are utilised for all types of publicity including propaganda for individual industries. *exhibitions, seminars* and *conferences, films and lantern slides, preparation of posters* and *charts, demonstrations* and *publication af phamphlets* and *journals.*

The amount untilised during 1955-56 was Rs. 11,44,200.

Information regarding the amount so far utilised during the current financial year is not yet available since the accounts have not yet been finalised.

x x x

IN RAJYA SABHA

31st July, 1956.

QUESTION: Shri M. Valiulla ; Will the Minister for Production be pleased to state ;

a) the number of Ambar Charkhas proposed to be introduced in 1956–57: and

b) the estimated amout of cost for implementing this scheme ?

ANSWER: Minister(Shri K.C. Reddy)

a) 75,000.

b) It is estimated that about Rs. 230 lakhs as grants and about Rs. 228 lakhs as loans will be required inclusive of subsidy and working capital for implementing the scheme during the current year.

LET US REPENT

"Khaddar economics is wholly different from the ordinary. The latter takes no note of the human factor. The former wholly concerns itself with the human. The latter is frankly selfish, the former necessarily unselfish. Competition and, therefore, prices are eliminated from the conception of Khaddar. There is no competition between hotels and domestic kitchens. It never enters into the head of the queen of the house to calculate the costs of her labour, the floor space, etc. She simply knows that to conduct the domestic kitchen is as much her duty as it is to bring up children. If she were to count the cost, the logic of facts would irresistibly drive her to the destruction of her kitchen as well as her children. Some have done both. But thank God, the cult makes no promise of appreciable increase. It is our innate laziness which prevents us from seeing that we sinned against Indian humanity when we destroyed the domestic wheel. Let us repent of our sin and return to the peace-giving wheel."—Mahatma Gandhi.

Beok Reviews

GANDHIANA

Books Reviewed : **Ruskin Unto This Last-A Paraphrase** Pp. 68, As. 6/
May Dear Child. Letters to Esther Feering Pp. 123, Rs. 1/8
Thoughts on National Language. Pp. 216, Rs. 2/
Mashruwala, K. G. : **Gandhi and Marx** Pp. 117, Rs. 1-8/
Gregg, Richard, B : **A Compass for Civilization,** Pp. 279, Rs. 3/
All Published by Navajivan Publishing House, Ahmedabad.

As the years roll by interest in Gandhism naturally deepens. For, Gandhi was not just a historical phenomenon; he was the embodiment of certain values. There is a great interest in reading anew what Gandhiji had thought and said decades ago, for now, with the passage of time, a certain perspective becomes possible. The essential Gandhi will emerge clearly as this perspective deepens, for ideas and thoughts have a knack of appearing in quite a different light when viewed apart from their immediate topical setting.

Along with the *Gita* Ruskin's *Unto This Last* ranks as one of the major works that profoundly influenced Gandni's life. The present edition is a paraphrase translated from the original Gujarati by Valji Govindji Desai. The contents of Ruskin's testament are well known, for some of its prominent ideas form the hard core of Gandhism in its diverse phases. The salient ideas of this testament are that the good of the individual is contained in the good of all; that honest labour is dignity in itself; that only a life of labour is life worth living. Finally, after a masterly exposition of the ideas in the work, Gandhiji writes a prophetic paragraph about the absolute necessity of character which alone can make this land a land of gold once again,

My Dear Child contains letters addressed by Gandhiji to Esther Faering and her two daugaters Nan and Tangai. Esther Fearing came to India as a young Danish missionary and came to know Gandhiji well. She admired him and appreciated his ideals and work and this bond of understanding is delicately expressed in these letters. The letters begin in 1917 and continue till 1940 and range over a wide variety of subjects. The letters are full of human wisdom and warmth of affection and make an extremely interesting reading. For the student of Gandhism they possess great value as they reveal a facet of Gandhiji's personality confronted with conflicts of religion, prejudices

and principles.

Gandhiji was a great protagonist of Hindustani as the national language of India. His thoughts on the problem of the national language and also of the regional languages are conveniently brought together in *Thought on National Language*. The controversy between Hindi and Hindustani is but of academic interest to us now. Many of Gandhiji's ideas on the issue of languages and their role in political, administrative and social life, have a particular relevance today. His suggestion that there should be one script for all the languages of India, deserves the utmost consideration and is eminently practicable. We have heard linguism being deplored, but one has yet to find anyone of any eminence decrying the fanatical attachment to scripts so prevalent in many parts of the country. If one script for all the languages of India be accepted, and Devanagari seems to be the best suited for the purpose, what a long way will we have gone in forging intra-regional understanding and national unity. His suggestion about a basic Hindustani should also be reread by our Hindi purists and fanatics. Especially relevant is his observation that "where necessary words should be taken from foreign languages and bodily adopted".

Gandhiji is, of course, here referring to scientific and technical terms of this basic Hindustani. Likewise Gandhiji's injunction on that education from the primary to the university stage should be given in the language of the area needs also to be brought to the attention of the educationists now exercised with the problem of finding a medium of instruction to replace English.

The second reprinting of *Gandhi and Marx* by K.G. Mashruwala is indeed very timely. There is much loose and interested talk at present about Gandhism being the same as communism, but without violence. As Acharya Vinoba Bhave notes in his illuminating introduction, the two are diametrically opposed in fundamentals. Gandhism and Communism, as the Acharya puts it, "are irreconcilable;. the differences between them are fundamental". Gandhism is an ethical approach to the problems of life and the world; communism is a soulless doctrine which ultimately enslaves the very man whom it sets out to liberate. Communism is "essentially devoid of any philosophical content. It is so, because it is not an edifice at all, [but a pretentious jumble. Its determinism is soul-searing and its violence repugnant to all norms of civilized behaviour. Communism claims to work for the welfare of all and so does Gandhism; but the similarity between the two ends there. Gandhism and Communism are very ably examined by Shri Mashruwala from the ethical, philosophical and economic points of view. He points out the fundamental divergences between the two. Communism is alien to the Indian tradition, while Gandhism expresses its very being; the only alternative to communism, as Shri

Mashruwala rightiy points out, is Gandhism.

A *Compass for Civilization* by Richard B. Gregg is an attempt to find a pattern of meaning in the order of thoughts and feelings we encounter in life. The author examines the prevalent philosophical assumptions about the knowledge of the real and the apparent and emphasizes the absolute need for a clear scale of values as a compass for our civilization. Science gives us knowledge about the *what* and *why* of things; there is now the need to have a distinctive knowledge concerning the *whence* and *whither*. Science has revolutionized our lives, but not the ways we live our lives and it is in this that the need for a scale of values is clearly felt. These values are spiritual values which alone will save civilisation from floundering and the means for establishing these values in our life are those of meditation and contemplation. The second part of the book discussess the principal teachings of Christ and not so much the doctrines of the churches which often attempt to pass muster as the real teachings of Christ. The book is very stimulating and provocative in its approach and in the questions it raises and deserves wide reading. —B. G. G.

A PENANCE

"I think of the poor of India every time that I draw a thread on the wheel. For a person suffering from the pangs of hunger, and desiring nothing but to fill his belly, his belly is his God. To him anyone who gives him bread is his master. Through him he may even see God. To give alms to such persons, who are sound in all their limbs, is to debase oneself and them. What they need is some kind of occupation, and the occupation that will give employment to millions can only be hand-spinning. But I can instil my faith in the potency of hand-spinning in the minds of the toilers of India not by making speeches, but only by spinning myself. Therefore, I have described my spinning as a penance or sacrament. And since I believe that where there is pure and active love for the poor, there is God also. I see God in every thread that I draw on the spinning wheel"—Mahatma Gandhi

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KHADI SCHEMES AT WORK

The All India Khadi and Village Industries Board, which was constituted in February 1953 completed the third year of its activities on the 31st March 1956. The Board prepared during its second year 1954-55 various schemes for the development of khadi and started implementation of each of them through the various certified Khadi institutions. All these schemes are in the nature of development schemes and as such, work in respect of each of these schemes could be carried on from year to year. Thus all the schemes which were started in 1954-55, were sanctioned also approved for 1955-56.

The Madras State is the only State which has been carrying on Khadi work as a Government activity. When the new State of Andhra was formed, the Government Khadi Centres in that area were taken over by the Andhra State Government which handed over all the Khadi Centres to the Board.

The Board gives assistance only to certified institntions which are either registered under the Registration of Societies Act of 1860 or are registered Cooperative Societies. The Board gives financial assistance in two forms : Loans and Grants for the promotion and development of the different aspects of Khadi work, e. g. hand spinning weaving, production and sale of khadi and implements, training, revival of arts, rehabilitation of weavers, spinning and competitions, spinning in jails, exhibitions, sale of khadi hundis etc.

Loans :

Loans are given for the pruchase of raw materials, for payment of wages etc., for production and sale of khadi and implements, on the basis of the turnover and the work done by each applicant institution in the previous year. The Board is authorised to grant loans to the maximum extent of Rs. 6 lakhs to any one institution. The following Table gives an idea of the asistance given by way of loans, during the last three years.

Loans.	No. of ins-titutions.	1953–54 Rs.	1954–55 No.	Rs.	1955–56 No.	Rs.
Through the Gov.t direct.	7	41,00,000	8	63,08,500	—	Nil
By the Board	55	26,14,500	76	41,56,350	90	1.75,69,200
For cotton purchase				33,08,500		Nil

Repayment towards loans are being received from institutions. The net amounts outstanding in respect of loans as on the 31st March 1956, are as follows:

Loans advanced direct by the Government	Rs. 59,81,685/-
Loans advanced by the Board	Rs. 2,23,32,828/-

During the first two years, interest af 3 per cent was charged in respect of loans, but since April 1955, the loans are interest free.

Schemes And Subsidies

In order to expand the production and sale of Khadi and to train more persons in handspinning, the Board offers assistance to its certified institutions. Grants and subsidies are not paid in a lump sum to any institution, but on the basis of actual work done by each of them, under each scheme.

In addition to institutions, these individuals who spin for their own cloth requirements, i, e., for self-sufficiency in cloth, are given a subsidy in the form of 75 per cent of the weaving charges of their yarn or at 5 annas per sq. yard. whichever may be less to the maximum of 20 yards per such "self-sufficiency spinner" who is known as 'vastraswavalambi.'

The progress of the Swavalambi Scheme may be seen from the following Table :

	1953-54	1954-55	1955-56
No. of self-spinners	14,993	40,236	73,938
Khadi produced : Sq. Yds.	7,10,119	11,38,873	47,38,529
Khadi produced : value in Rs.	11,07,687	Rs. 17,88,858	Rs. 63,45,967

Training Of Workers

For the expansion of Khadi work, the most pressing need is to have trained workers. For this purpose, the Board has established a central training institute at Nasik where, in addition to the training in Khadi, training in other Village Industries like soap making, handpounding of rice, bee—keeping, ghani oil, is also imparted. As regards training in Khadi the trainees are given stipends @ Rs. 40/--per month, while those who are student instructors are paid a stipend of Rs. 50 per month.

In addition to the Central Vidyalaya at Nasik, there are Regional Institutes.* For students in the Regional Institutes the stipends are at Rs. 30/- per month and a tuition fee at Rs. 25/- per month.

In addition to these Central and Regional Training Institutes, arrangements for training in Khadi exist at

* Fuller information about the training institutes and facilities offerred by the Board is contained in the report published elsewheroe

important Khadi Production Centres, where the trainees can have practical training. The courses at such Training centres are of six months' duration. Trainees at such centres are paid a monthly stipend of Rs. 30 per month and the institution is paid a tution fee at Rs. 15/-per month per trainee. Only when the minimum number of trainees are admitted, is such a training centre allowed to be conducted.

Statewise Statement regarding Training in Khadi at Production Centres during 1955-56 is given in the following Table :

S. No.	State	No. of Centres	No. of Trainees	Amount Paid
1.	Andhra	2	54	6,154 - 0- 0
2.	Bihar	4	74	17,397- 0- 0
3.	Bombay	6	102	19.841-10- 0
4.	Hyderabad	1	12	2,900- 6- 0
5.	Madras	1	12	1,620- 0- 0
6.	Madhya Pradesh	2	67	12,827- 0- 0
7.	Punjab	3	123	15,230- 0- 0
8.	Pepsu	2	112	14,485- 9- 0
9.	Rajasthan	4	86	9,333- 3- 0
10.	Saurashtra	1	40	10,320- 0- 0
11.	Travancore--Cochin	5	129	33,866-13- 0
12.	Uttar Pradesh	17	621	1,36,982-14- 0
13.	West Bengal	3	30	2,640- 0- 0
	Total	51	1,462	2,83,694- 7- 0

Training In Salesmanship

Just as persons trained in spinning and weaving are required for Khadi Production Centres, persons trained in the art of salesmanship are also required in large numbers for Khadi Bhandars. To provide such training, the Board conducts a two-months' training course in salesmanship at Bombay, where persons working in different Khadi Bhandars are taken up and trained, so that such Khadi Bhandars can have the services of trained Khadi salesman. These salesmanship trainees are given a stipend of Rs. 50 per month, and travelling allowance of (maximum) Rs. 75 per trainee and tuition fee @ Rs. 25/- per trainee per month.

Subsidy On Implements

After providing trained workers, the next important assistance has to be in respect of implements i.e. replacement of old ones by new and introduction of improved charkhas, dhunai modhias for carding, looms for weaving and charkhis for ginning. For this purpose, the Board gives a subsidy of 50 per cent in the cost of implements and/or their parts.

This subsidy on implements is called the "Saranjam Subsidy" for which the amounts disbursed were as follows :

1953-54	Rs. 48,456/-
1954-55	Rs. 2,00,653/-
1955-56	Rs. 8,73,855/-

Promotion Of Handspinning

An important aspect of the Khadi work is to increase the number of spinners, to induce more and more persons to learn spinning on the Charkha. For this purpose, trained instructors are necessary to introduce new Charkhas. The Board has a scheme to pay honorarium to persons who would introduce new charkhas, i.e., train new spinners. The total assistance, to be paid per new spinner trained is fixed at Rs .11/-which is made up of Re. 1/- as the honorarium to the person who enlists a newspinner, Rs. 5/- as scholarship for a trainee, Re. 1/- as commission on yarn production and Rs. 4-/ as a subsidy to cover losses. During 1955-56 Rs. 2,82,567 were disbursed for the promotion of hand-spinning and 27,000 new spinners were trained by institutions in 16 States, which would help to increase production of Khadi by about Rs. 25 lakhs.

Spinning In Jails

The Board has a scheme for imparting instruction in spinning in jails. Under this scheme, the Board provides an instructor while the jail authorities provide the necessary charkhas and cotton. The yarn spun by the prisoner trainees is got woven in the jail and the cloth utilised in the jail. These spinning instructors are paid Rs. 125 as salary and Rs. 25 as travelling allowance per month. The scheme has been introduced in 20 jails, 6 of which are in the Bomday State. Rs. 20,485 were spent during 1955-56 for salaries of the spinning instructors. The Scheme has been extended to 5 Beggars and Remand Homes, which are all in the State of Bombay.

Spinning Competitions

The Board has an extensive scheme for holding Spinning Competitions on District and State levels and an All India Competition every year. These Competitions are helpful to encourage students and young persons to improve their proficiency in spinning. A standard of performance is fixed for admission to competition at each level and the winner or winners are awarded prizes. A competitior in the All India Competition who has won a prize in a previous year, is not eligible for a prize in a subsequent year unless he betters his previous year's performance.

In 1955-56 in all 1515 Local competitions were organized, all over the country wherein about 50,000 competitors took part. There were 8 State level competitions in the States of Andhra, Bihar, Bombay, Punjab, Rajasthan, Saurashtra, Uttar Pradesh and West Bengal.

The first-prize winners and their performances at the All India Spinning Competitions are as follows :

	speed (in 2 hours) rounds of 4 ft.	Wage in two hours	Fine count in 1 hour	Takli in 1 hour
1954 at Delhi	1333	Rs. 0-5-6	341½ counts	337 rounds
1955 at Bombay.	1330	Rs. 0-5-6	269½ counts	345 rounds
1956 at Calcutta	1298	Rs. 0-5-9	286½ counts	403 rounds

During the year 1955-56 Rs. 73,768 were spent in respect of Spinning Competitions, against Rs. 18,134 in 1954-55 and Rs. 9,233 in 1953-54.

Rehabilitation Of Weavers

Handloom weavers weaving handspun yarn are not found at all places where handspun yarn is produced. In order to settle handloom weavers at places where none are functioning, the Board has a scheme for the rehabilitation of weavers under which, if the local population gives land and material for sheds or hutments for weavers from outside, the Board offers a maximum grant of Rs. 500 per weaver's family to be so rehabilitated, through any of the Board' s certified institutions. This amount of Rs. 500 is made up as follows:

Rs. 200 for the cost of the weaving equipment.

Rs. 50 to 100 for charges for transportation of weaving equipment from the weaver's existing place to the new Spinning Centre.

Rs. 150 wages for the period of transit and re-establishment.

Rs. 25 to 50 expenses for the installation of the weaving equipment at the new place.

During 1955-56 the Board disbursed Rs. 83,000 for the rehabilitation of 171 weaver's families in 8 States as follows :

Bihar 1, Bombay 80, Madhya Bharat 5, Rajasthan 2, Saurashtra 30, Travancore-Cochin 32, Uttar Pradesh 11 and West Bengal 10.

This Scheme was introduced in 1954-55, and during that year Rs. 45,000 were disbursed.

Revival Of Arts

India has been famous for her exquisite weaving of Dacca Muslins, the

Patola of Gujarat and Saurashtra, Sujani of Bihar and Sambalpur Weaving of Orissa, Khani Shawl weaving of Kashmir, and the Khash Weaving of the Punjab as also the Kalamkari printing in Andhra. These arts have declined and in most cases have all but disappeared. The Board has a scheme of assistance for the revival of these arts. During 1955-56 Rs. 1,50,000 were disbursed as follows :

Rs. 1,12,000 for fine count spinning
Rs. 10,000 for Sambalpur Weaving.
Rs. 9,000 for Khesh Weaving.
Rs. 9,000 for Patola Weaving.
Rs. 5,000 for Khani Shawl Weaving
Rs. 5000 for Kalamkari Printing.

This scheme was introduced in 1954-55 and Rs. 74,791 were disbursed that year.

Peripatetic Parties

The Board introduced in 1954-55, a scheme of the implementation of Khadi work through peripatetic parties attached to 66 institutions covering 15 States :

State	No. of Institutions	No. of workers.
Andhra	1	11
Bihar	3	79
Bombay	15	19
Cutch	1	1
Delhi	1	1
Hyderabad	1	3
Madhya Bharat	2	12
Madhya Pradesh	3	3
Orissa	1	41
Punjab	1	1
Rajasthan	2	3
Travancore--Cochin	14	32
Saurashtra	1	2
Uttar Pradesh	12	32
West Bengal	8	10
	66	250

During 1955-56 an expenditure of Rs. 1,41,396 was incurred under this scheme, as compared to the expense of Rs. 60,473 in 1954-55

Subsidy On Production

Newly established Khadi Centres and those which have not stabilised their position and built up reserves, very often find it difficult to meet their overhead expenses. In order to assist them to overcome the initial handicaps, a general subsidy @ ½ anna per rupee of Khadi produced is paid. In addition to this general subsidy, an additional subsidy @ ½ anna per rupee of Khadi produced is also paid to such centres or institutions which have made special efforts to increase production, i.e; whose production is at least 10 per cent above their previous year's production. This additional subsidy is meant to help the smaller or newly started production centres and as such is limited to the maximum of Rs. 1,000 only, i. e. on increase of production upto Rs. 32,000 per year. This production subsidy has been helpful in increasing the production of Khadi during the year, as will be evident from the following compartive figures :

Production	1953—54	1954—55	1955—56
Square Yards	1,15,45,199	1,53,73,304	1,91,72,890
Weight in lbs.	34,92,161	51,24,061	72,59,406
Value in Rs.	2,13,28,434	2,96,43,343	3,86,09,647

Subsidy On Sales

New Khadi Bhandars in new area are assisted to set themselves up in the trade by giving them a subsidy @ ½ anna per rupee on all retail sales to consumers. This subsidy is not paid on sales to *bhandars.* To meet their establishment charges, an additional subsidy @ ½ anna per rupee is given on sales, which are at least 10 per cent above those for the previous year. The amount paid is up to a maximum amount of Rs. 1,000 or on sales upto Rs. 32,000 only.

This has been helpful in increasing the sales of Khadi, as is evident from the following comparative figures :

	1953-54	1954-55	1955-56
(1) Total retail sales	Rs. 1,82,84,511/-	Rs. 2 53,18,360/-	Rs. 4,98,16,651/-
(2) Subsidy on production retail sale	Rs. 1,81,116-12-0	Rs. 11,63,902-4-0	Rs. 21,59,726/-

Agency Sales

The Board has introduced a system of payment of honorarium to Khadi workers who work as Sales Agents of certified Khadi Bhandars and effect sales on a commission basis in remote areas not coevred by local depots. The scale for such honorarium which is in addition to the commission receivable from the Bhandars and which is paid by the Board are fixed. If any such Sales Agent can effect sales of more than Rs. 11,000 per year, he has to turn the Agency into a Khadi Bhandar. This scheme has attracted a large number of workers who sell Khadi by means of mobile bhandars or as hawkers.

Khadi Hundi

Propagation of Khadi is a huge task. The opening of any number of Khadi Bhandars or appointing of Sales Agents do not answer the purpose completely. To popularise Khadi, it has to be brought to the notice of all sections of the public and establish personal contact with potential customers. This is sought to be achieved by the sale of Khadi Hundis. These Hundis are issued for sale on Gandhi Jayanti Day (2nd October every year) and could be exchanged for Khadi at any of the Certified Khadi Bhandars within six months from the date of purchase. In 1954-55, hundis worth Rs. 57,41,670 were sold. In 1955-56, these Khadi Hundis were sold only through Post Offices. The Ministry of Communication and the Postal Department extended their cooperation in the organisation of the sale of the hundis. No hundis were issued for general sale to institutions and workers as in the previous years. The sales through the post offices amounted to about Rs. 25 lakhs.

Exhibitions

Another very important and very effective means for the propagation of Khadi and village industries is through exhibitions. Apart from the All India Khadi and Village Industries Exhibition held on the occasion of the Congress Session at Amritsar in February 1956, three medium size exhibitions were held at Bhuj (Kutch), Surat (Bombay), and Kumbakonam (Madras) during 1955-56. Another exhibition is due in October 1956 in Jaipur. A grant of Rs. 50,000 was paid for each of these exhibitions.

Small-size exhibitions were held during the year at 69 places, of which

37 were held in the Bombay State, 8 in Uttar Pradesh, 5 in Saurashtra, 3 each in Pepsu and Bengal, 2 each in Madhya Pradesh and Vindhya Pradesh and 1 each in Ajmer, Andhra, Bihar, Madhya Bharat, Orissa, Rajasthan, Travancore-Cochin and Tripura. For the small size exhibitions, a grant of Rs. 10,000 each was paid.

The Board disbursed in all Rs. 7,63,323 for all exhibitions, during the year 1955-56.

In addition to these exhibitions demonstrations of the various processes of Khadi and Village Industries were organised in the Emporium at Bombay and a sum of Rs. 35,929 was spent during 1955—56 for the same. Demonstration parties from different parts of India were invited. These demonstrations have proved very popular.

A permanent exhibition of the best specimen of articles of village industries, produced in the country, together with rare specimens of ancient arts, is maintained in the Emporium at Bombay. For this purpose Rs. 11,360 were spent during the year.

Intensive Centres

In order to make areas or regions self-sufficient in cloth, the Board has started organising Intensive Centres, under which at selected places, trained khadi and village industries workers are engaged for organising Khadi work on an intensive basis. The Board defrays the salaries of the staff engaged at such intensive areas. Such centres require godown for stocking goods produced by them, as also for storing raw material. The Board has agreed to pay Rs. 10,000 as grant, as 2/3rd of the cost of the construction of each such godown, and to give a loan of Rs. 5,000 for the same, to each such centre for the development of the Khadi industry on intensive basis. Under this scheme, the Board disbursed Rs.2,00,000 during 1955--56, while during 1954--55 the amount disbursed was only 1,20,000.

STATEMENT SHOWING STATEWISE DISBURSEMENTS OF

Under its Khadi

S. No.	State	Loan	Peripatetic party	Khadi Sales Rebate
1	2	3	4	5
1	Andhra	40,000	713-10-0	196,392-12-0
2	Assam	-	-	24,663- 1-0
3	Bombay	972,400	32,990- 2-0	1,65,569- 1-0
4	Bengal	385,000	4,698- 4-0	2,25,866-12-0
5	Bihar	4455,000	3,162- 7-0	7,37,337- 3-0
6	Coorg	-	-	-
7	Cutch	25,000	-	12,268-11-0
8	Delhi	45,000	1,345- 0-0	20,1374- 9-0
9	Hyderabad	12,75,000	3,999- 2-0	20,7530-15-0
10	Jammu&Kashmir	30,500	-	8,758- 1-0
11	Madhya Pradesh	2,77,000	1,055-15-0	13,00,694- 8-0
12	Madras	2,23,000	2,884- 8-0	51,9576- 3-0
13	Mysore	10,000	-	119,691-14-0
14	M. Bharat	3,30,000	3,883-10-0	79,124- 6-0
15	Orissa	40,000	17,811- 1-0	56,430- 0-0
16	Punjab	17,23,750	240- 0-0	229,379- 8-0
17	Pepsu	1,06,250	-	25,237- 4-0
18	Himachal Pradesh	75,000	-	18,110-11-0
19	Rajasthan	24,56,800	985- 0-0	215,419- 6-0
20	Ajmer	30,000	-	10,141- 7-0
21	Saurashtra	11,75,000	7649-12-0	356,322-11-0
22	T. C.	1,24,500	13975-15-0	47,971-13-0
23	U. P.	37,70,000	46002-10-0	1740057-13-0
	Total	1,75,69200	141,397- 0-0	79,8918- 9-0

GRANTS & SUBSIDIES FROM 1st APRIL 1956 to 31st MARCH 1956

Scheme

Honorarium for promotion of hand spinning	Spinning class in Jails	Revival of weavers	Rehabilitation of weavers.	Development of Khadi Ind. on Int. Basis	Production and sales subsidy
6	7	8	9	10	11
2,376	—	34,960	—	10,000	155113- 5-0
—	—	—	—	—	715-15-0
72,563	6,962-12-0	-	40,000	-	269553- 1-0
1,100	-	11,075	2,500	-	87670- 1-0
24,877	—	70,000	—	30,000	352143- 9-0
—	750- 0-0	—	—	—	—
1,1000	—	—	—	—	3663-12-0
—	133- 1 0	—	—	—	35056- 3-0
1,3750	—	—	—	—	44187- 5-0
—	—	5,000	—	—	25883- 6-0
1,100	—	—	—	60,000	35105- 1-0
7,645	—	—	6,000	10,000	129589--14--0
825	—	—	—	—	28673-- 1--0
1,606	2,820- 5-0	—	1,500	—	14506.- 1--0
66,000	2,993-12.-0	10965	—	—	25820- 1-0
2,2000	2825-14-0	9000	—	10,000	82955.- 3--0
—	—	—	—	—	736--11-0
—	750- 0-0	—	—	—	178-.10-.0
9,075	—	—	1,000	10,000	185793-15-0
—	—	—	—	—	2043-10-0
11,588	—	9,000	15000	20000	683,23- 3-0
39820	3125- 0-0	—	10000	10000	9030-12-0
27002	3125- 0-0	—	7000	40000	602983-15-0
2,82,567--0--0	20,485-12-0	150000	83000	200000	2159727- 4-0

STATEMBER SHOWING STATEWISE DISBURSEMENTS OF

Under its Khadi

S. N.	State.	12 Vastraswa-valmban subsidy	13 Research in Khadi	14 Exhibition.
1.	Andhara	18408- 1-0	7703- 5-9	10160- 0-0
2.	Assam	—	—	—
3.	Bombay	123158- 0-3	15709- 0-0	254428-13-0
4.	Bengal	3448- 0-0	—	19507-11-6
5.	Bihar	6123-12-0	—	5000- 0-0
6.	Coorg	—	—	—
7.	Cutch	317-10-0	—	5000- 0-0
8.	Delhi	1061-12-0	—	4759-10-0
9.	Hyderabad	1543- 4-0	—	—
10.	Jammu & Kashmir	1501- 4-0	—	—
11.	M. P.	18187- 0-0	500- 0-0	14375- 0-0
12.	Mysore	425- 9-0	—	20000- 0-0
13.	Madras	353- 2-0	—	60300- 0-0
14.	M. B.	914- 0-0	—	10000- 0-0
15.	Orissa	—	—	11460-10-9
16.	Punjab	1038216- 6-0	—	250206- 0-0
17.	Pepsu	14838- 1-0	—	—
18.	Himachal P.	—	—	5000- 0-0
19.	Rajasthan	321485- 5-0	—	49532- 0-0
20.	Ajmer	9696- 9-0	—	13500- 0-0
21.	Saurashtra	366548- 3-3	—	34470- 0-0
22.	T. C.	398-10-0	—	201087-14-0
23.	U. P.	293804-15-0	—	80376- 0-
	Total	2220429- 7-6	23912-5-9	913184-12-3

GRANTS & SUBSIDIES FROM 1st APRIL 1956 to 31st MARCH 1956

Scheme

(Contd.)

15 Agents honorarium	16 Khadi Hundi	17 Saranjam Rebate	18 Spinning competition	19 Training in Khadi
1915- 5-0	1286-13-0	17204-15-0	1781- 0-0	6151- 9-0
—	—	7891- 4-0	—	—
20005- 5-0	47359- 3-0	165306- 6-0	18532- 5-0	19871- 6-0
1100- 0-0	—	21630- 7-0	17216-14-6	4469- 0-0
1818- 0-0	—	111787-12-0	12065- 6-6	7716-11-0
—	—	—	75-11-0	—
—	—	1940-12-0	—	—
60- 0-0	—	2486- 9-0	226-15-0	—
2896- 4-0	3- 0-0	27960-13-0	120-11-0	2996- 6-0
—	65- 0-0	—	—	—
18062- 9-0	255- 6-6	139085- 2-0	87-15-0	10853- 0-0
245- 0-0	—	3691-15-0	675- 5-0	—
892- 5-0	2976-11-0	21259- 1-0	1085- 6-0	7391-13-0
597- 0-0	87-12-0	10782- 2-0	51- 0-0	—
1214-10 0	—	3332-15-0	—	—
1006- 3-0	4335- 4-6	44813-15-0	2583- 7-3	15590- 5-0
—	—	5047- 5-0	—	14080-11-0
—	—	273- 5-0	—	—
4143- 3-0	1645-11-3	52926- 3-0	4463- 5-0	9333- 3-0
—	—	1750- 2-0	—	—
—	271- 0-0	103174-10-3	5000- 0-0	10320- 0-0
2204- 7-0	1024- 4-0	16171- 1-1	2431- 0-0	36123- 0-0
11221- 7-0	—	115738- 1-6	7372- 0-0	123177- 9-0
67381-10-0	59310-- 1-6	873854-11-9	73768- 5-3	268077- 9-0

STATEMENT SHOWING STATEWISE DISBURSEMENTS OF
Under its Khadi

S. No.	State	Training in Regional Vidyalaya		Training in Nasik Vidyalaya	Training in Ahmedabad Vidyapith
		Training	Building grants		
1		20		21	22
1.	Andhra	—	—	—	—
2.	Assam	—	—	—	—
3.	Bombay	—	120000/-	77689	21525/-
4.	Bengal	—	180000/-	—	—
5.	Bihar	14263-3-0	—	—	—
6,	Coorg	—	—	—	—
7-	Cutch	—	—	—	—
8.	Delhi	—	—	—	—
9-	Hyderabad	—	60000/-	—	—
10.	Jammu & Kashmir	—	—	—	—
11.	M. P.	—	—	—	—
12.	Mysore.	—	—	—	—
13.	Madras	12112-12-0	—	—	—
14-	M. B.	14583- 9-6	60000/-	—	—
15.	Orissa	—	—	—	—
16.	Punjab	11924-13-0	60000/-	—	—
17.	Pepsu	—	—	—	—
18	Himachal P.	—	—	—	—
19,	Rajasthan	20885- 8-0	60000/-	—	—
20.	Ajmer.	—	—	—	—
21.	Saurashtra	20055- 0-0	60000/-	—	—
22.	T. C.	—	60000/-	—	—
23.	U- P.	38773- 5-0	60000/-	—	—
	Total	132599-4-6	720000	77689	21,525

Contral Supplles

To ensure prompt supplies of Khadi to Government departments a separate department has been set up at the Boards' head Offices. This Department mainly deals with the supply of Khadi material to the various Govt. Departments against Accepted Tenders contracted with the Directorate of Supplies (Textiles), Bombay.

The Indenting Departments place their demands with the Directorate of supplies (Tex). Bombay, which in turn, prepares a schedule to tender in the prescribed form, stating the description and quantity of stores required upto relevant specifications; to be supplied by stipulated delivery dates. As soon as such tender enquiries are raceived in this office , they are referred to Production centres, The Khadi Board enters into contract with the supplying centres. On receipt of such contract forms from the centres. the Board tenders its offer to the Director of Supplies (Tex.) Bombay, for necessary confirmation. When the confirmed order in the form

GRANTS & SUBSIDIES FROM 1st APRIL 1956 to 31st MARCH '56

Scheme (Contd.)

Training in Kallupatti	Traning in Salesman ship	Training in Ambar charkhs	Ambar pilot scheme	Delhi Exhibition,
23	24	25	26	27
—	—	—	—	—
—	—	—	—	—
—	15,937-4-0	—	—	—
—	—	—	—	—
—	—	—	—	—
—	—	—	—	—
—	—	—	—	1020-15-0
—	—	—	—	—
—	—	—	—	—
—	—	59400	1758625	—
—	—	—	—	—
51550	—	—	—	—
—	—	—	—	—
—	—	—	—	—
—	—	—	—	—
—	—	—	—	—
—	—	—	—	—
—	—	—	—	—
—	—	—	—	—
—	—	—	—	—
—	—	—	—	—
—	—	—	—	—
|	—	—	—	—
51550	15937-4-0	5940000	175862/5	1020—15

of accepted tender is received, the Khadi Board enters into a final contract and undertakes to supply the material to the consignees.

Registers are maintained by this Department for recording the progress made in the matter of supply against accepted tenders and fortnightly progress reports are sent to the Director of Supplies (Tex.) Bombay, and Directorate of the Railway Board and Post & Telegraphs Department. A copy of these reports is also sent to the Government of India (Ministry of Production).

The Department also maintains a central Godown at Dockyard Road, Bombay where cloth for supplies for various items are stocked and offered for inspection. The bulk of the supplies is made by the supplying centres direct at different places.

Regular accounts are maintained for recording transactions against each accepted tender. The recovery of bills for supplies made are preferred by submitting supply bills to the Pay and

Accounts Officer of the Government of India (works Housing and supplies Ministry) in the prescribed forms and 90% of the total value of supplies are claimed and recovered against the relative Inspection Notes, received from the different units of the Directorate of Inspection. The 10% balance bills are

Statment

Consolidated statement showing the value and quantity of Accepted Supplied and to be Supplied to for the years

S. No.	Department & period	Value Rs.	Total Order Yds.	Total Order Nos.	Quantity supplied upto 8.5.1956 Yds.	Quantity supplied upto 8.5.1956 Nos.
1.	**Railways**					
	1933–'54	3,64,630	1,53,936	1,27,132	1,53,936	1,27,132
	1954–'55	7,01,938	2,99,438	1,68,677	2,96,166	1,68,677
	1955–'56	34,44,223	11,56,251	1,52,945	8,73,067½	1,49.045
		45,10,791	16,09,625	4,48 754	13,23,169½	4,44,854
2.	**Posts & Telegraphs**					
	1953–'54	34,450	12.525	12,449	12,525	12,449
	1954–'55	26,65,734	11,57,176	11,437	11,57,176	11,437
	1955–'56	31,58,686	13,47,170	24.705	11,51,797	24,705
		58,58,870	25,16,871	48,591	23,21,498	48,591
3.	**Miscellaneous**					
	1953–'54	18,189	11,240	164	11,240	164
	1954–'55	1.16,536	45,795	10,441	45,795	10,441
	1955–'56	1,30,598	58,218	1,992	54,538	1.992
		2,65,223	1,15,253	12.597	1,11,573	12,597
4.	**Totals**					
	1953–'54	4,17,269	1,77,701	1,39,745	1,77,701	1.39,745
	1954–'55	34.14,108	15,02,409	1,90,555	14,99,137	1,90,555
	1955–'56	67,33,507	25,61,639	1,79,642	20,79 742½	1,75,742
	Grand Total	106,34,884	42,41,749	5,09,942	37,56 240½	5,06,042

preferred later. Necessary registers of Inspection Bill and ledgers against accepted tender bllls are mainatained.

Statements I and II below show progress of Government supplies during the period 1953-54 to the end of June 1956.

1

tenders received from Government Departments and quantity 1953-54, 54-55, & 55-56 as on 30th June 1956

Balance as on 8-5-1956		Quantity supplied from 8-5-56 to 30-6-56		Balance as on 30 th June '56	
Yds.	Nos.	Yds.	Nos.	yds.	Nos.
Nil	Nil	—	—	—	—
3,272	Nil	Nil	—	3,272	Nil
2,83,183½	3,900	1,03.908½	3,300	1,79,275	600
2,86,455½	3,900	1,03,908½	3,300	1,82,547	600
Nil	Nil	—	—	—	—
Nil	Nil	—	—	—	—
1,95,373	—	1,12,753½	—	82,619½	—
1,95,373	—	1.12,753½	—	82,619½	—
Nil	Nil	—	—	—	—
Nil	Nil	—	—	—	—
3,680	—	3.680	—	Nil	—
3,680	—	3.680	—	—	..
Nil	Nil	—	—	—	—
3,272	Nil	Nil	—	3,272	—
4,82936½	3,900	2,20,342	3,300	2,61,894½	600
4.85,508½	3,900	2,20,342	3,300	2,65,166½	600

STATEMENT II

Consolidated statement showing the value and quantity of Accepted and quantity supplied and to be supplied to them for the

S. No.	Department	Upto 8th May '56				
		Value Rs.	Total Order	Unit	Supplied	Balance
1.	Indian Railways	48,73,669	16,65,158	Yds	1,09,103	15,56,055
			72,877	Nos	41,500	31,377
2.	Post and Telegraphs	25,73,650	11,19,121	Yds	Nil	11,19,121
			Nil	Nos	Nil	—
3.	Miscellaneous	44,945	1,941	Yds	1,941	Nil
			14,980	Nos	Nil	14,980
	Total	74,92,264	27,86,220	Yds	1,11,044	26,75,176
			87,857	Nos	41,500	46,357

Progress Report

The progress of the supplies of Khadi materials against contracts placed by the Textile Directorate, Bombay, with the Khadi Board is shown in the two statements above.

With regard to the supplies for the year 1955-56, the All India Khadi & Village Industries Board had accepted contracts for supplies of approximately 26 lakhs yards of Khadi materials. Against this, supplies to the extent of 23 lakhs yards have so far been made and the balance of 2 lakhs and odd yards remained to be completed.

The Board had received some complaints about the lack of uniformity in dyed shade of Khadi materials supplied to the posts and Telegraphs Departments against 1955-56 orders. It is admitted that there were some variations in the shade (in respect of the stores supplied by the production centres directly) of the materials dyed locally in vat colour. In order to achieve a uniform standard which is essential if Government purchases of Khadi were to increase the centres have to equip themselves with modern processing plants which, if installed, would cost around Rs. 50,000 per unit. Most of the centres do not have the financial resources to undertake this. Even in cases where the centres are in a position to instal such plant they express a difficulty in agreeing to the suggestion as they fear that there will not be sufficient work throughout for the machinery. Further, the variety of cloth fabricated and coloured against Government Orders is different from the type of materials produced for public consump-

1956-57

Tenders, received from Government Departments year 1956-57 as on 30th June '56

From 9-5-56 to 30-6-56		As on 30th June '56			
Value Rs.	Total orders received	Total Value in Rs.	Total order in Yds & Nos	Supplied	Balance Qty. to be supplied.
7,55,612	2,28,304	56,29,281	18,93,462	21,30,34½	16,80,427½
	1,41,290		2,14,167	44,456	1,69,711
12,076	9,814	25,85,726	11,28,935	3,569	11,25,366
	Nil		Nil	—	—
12,746	16,716	57,691	18,657	1,941	16,716
	1,892		16,872	2,290	14,582
7,80,434	2,54,834	82,72,698	30,41,054	21,8,544½	28,22,509½
	1,43,182		2,31,039	46,746	1,84,293

tion and is unsuitable for commercial use. The Board has, therefore, requested the Government for the sanction of grants to the centres for the installation of mineral dyeing plants.

The position of supplies for the current financial year shows that the Khadi Board has received orders to the extent of 30,41,054 yards covering a total value of Rs. 82,72,698 as against the previous year's figure of Rs. 25,61,639.

The position regarding the disparity in prices of Khadi materials supplied to Government was considered by the Board recently. The position is explained thus : Price disparity exists from centre to centre. To cite an example Khadi from South is comparatively cheaper than the similar material produced in the North. The Board quoted a higher rate providing for a contingency, viz., that if the centre offering a lower rate could not, for some reason or other, supply the material against a particular tender, it might be necessary to divert the entire order to another centre where a higher rate prevailed. In fact, this was done in the case of one of the centres in the South which could not supply thick Khadi and eventually the order had to be diverted to other centres in the North. The Board does not make a profit out of these disparities in prices. It is working on "no loss - no profit" basis. Any profit that accrue is passed on to the customers. In case of supplies to Government also, the Board would treat the various Government Departments on the same basis as that of other customers. Actually the Board is now working out the amount of the

profit gained out of the supplies made to the Government, and a sum of over Rs. 3 lakhs is being sent to the Director of Supplies in this connection.

HAND-POUNDING OF RICE INDUSTRY

Rice forms the staple food of a large majority of the people in our country. The area under paddy was 75,949,000 acres in 1954-55 and 76,253,300 acres in 1955-56 and the corresponding production in terms of rice (70 per cent of paddy) was 24,531,000 tons and 25,474,000 tons respectively.

The All India Khadi and Village Industries Board had, for the past few years been making efforts to revive and develop the Hand Pounding of Rice Industry. For this the Board has schemes for financial assistance to workers, producers' and other types of co-operative societies and recognised registered institutions throughout the country. The financial assistance given is in the form of implements at subsidised costs, production subsidy of as. 6/- per B.Mds. of paddy processed, loan for stocking paddy. The loan is repayable in three years. For the first year no interest is charged. Three per cent interest is charged for the second and third years.

Besides the above, indirect assistance to the Handpounding Industry is given through propaganda, nutrition guides exhibitions, demonstrations, model centres etc. Training is given in the use of improved implements.

A brief idea of the development of Handpounding of Rice Industry made under the joint efforts of the All India Khadi and Village Industries Board, various State Khadi and Village Industries Boards and State Governments during the last three years and present progress can be had from the following table:

Production Subsidy

During 1st April 1956 to 31st August 1956, 2,55,634-35 B. Mds. of paddy were dehusked and production subsidy on the amouinting to Rs. 95,863-1-3 was paid. Statewise split up of these figures is given below :

State.	No. of Regd. Inst. & Co-op. Soc.	Paddy dehusked in B. Mds.	Production subsidy in Rs. (@ Rs. 0-6-0 per B. Md.)
Andhra	21	10,105-20	3,789- 9-0
Assam	17	8,444-10	3,166-6-9
Bihar	23	38,081-30	14,280-10-6
Bombay	27	1,67,715-20	62,893- 5-0
Madras	33	9,961-00	3,735- 6-0
Madhya Pradesh	22	9,371-10	3,514- 3-6
Mysore	12	2,605-30	977- 2-6
Travancore-Cochin	13	3,624-00	1,359- 0-0
Rajasthan	1	2,055-25	770-13-9
Uttar Pradesh	—	2,874-10	1,077-13-6
West Bengal	2	414-00	155- 4 0
Punjab	1	382-00	143- 4 0
Total	179	2,55,634 35	95,863 1 3

Loan :

A sum of Rs. 24,000/- were distributed as loan for stocking paddy during the year 1956-57 (i. e. August 1956), Statewise split up of this amount is as under :-

State	Loan amount Rs.
Madras	Rs. 1.000/-
Punjab	Rs. 20,000/-
Bihar (Patna)	Rs. 3,000/-
Total	Rs. 24,000/-

Training

1953-54 : In the year 1953-54 one training class was conducted at Nadiad in which 30 persons were trained.

1954-55 : In the year 1954-55 also one training class was conducted at Nadiad in which 49 persons were trained.

1955-56 : In the year 1955-56 two training classes were conducted at Nadiad in which 67 and 30 persons were trained respectively. Statewise split up of persons trained is as under :-

Table showing the development of Handpounding of Rice Industry
Made so far since September

Year	Implements supplied at subsidised cost i. e. 50% of the cost			
	No. of Chakkis	No. of Dhenkis	No. of W. Fans	Implement Subsidy
1953—54	151	—	34	4,720/-
1954—55	448	—	45	11,20/-
1955—56	625 stone and 7 Wooden chakkis	196	82	20,261/-
Total	*1224 stone and 7 wooden chakkis	196	161	36,191/-
April 1956 to 31st August 1956	353	73	76	11,221/-
Grant Total	1577 + 7 wooden chakkis	299	237	47,412/-

*In addition to these, during the three years 80,171 and 549 chakkis were Southern Karnatak Region, Dharwar.

Also in 1955--56, 52 chkakis and 5 fans

In 1954--55, 39 chakkis and 1 fan were supplied at full cost. Moreover 13

In India. The date relates the progress 1953 to August 1956

Production subsidy at 0-6-0 per B. Md		Loan for purchasing and stocking paddy & manufacture of implements
Paddy dehusked in B. Mds.	Subsidy disbursed in Rs.	Amount in Rs.
3,59,479	90,000-0-0	—
400,276-20	105,103--13--3	2,54,250--0--0
5,11,009--25	191;580--5--9	10,81,400--0--0
12,70,764--05	431,684--3--0	13,35,650--0--0
2,55,634--35	95,863--1--3	24,000--0--0
15,26,399--00	5,27,547--4--3	13,59,650--0--0

supplied pirectly by the regional Organiser. Bombay VIllage Industries Board,

were supplied at full cost

winnowing fans were sent to Inspectors for demonstration work in the year 1954-55

State	1953-54 1st training class duration 28-3-54 to 21-3-55	1954-55 2nd training class duration 18-12-54 to to 21-1-55	1955-56 3rdtraining class duration 16-10-55 to 5-11-55	4th class duration 25-5-55 to 8-4-56
Andhra	1	3	4	1
Assam	3	—	5	2
Bihar	3	3	3	6
Bombay	10	9	3	3
Coorg	—	—	2	—
Hyderabad	2	2	2	2
Jammu & Kashmir	—	1	—	3
Madras	—	3	3	1
Madhya Bharat	—	5	4	—
Madhya Pradesh	—	—	5	—
Mysore	1	4	—	1
Orissa	3	2	3	—
Punjab	—	3	4	—
Rajasthan	3	3	1	2
Saurashtra	—	3	3	—
Travancore-Cochin	2	—	4	7
Uttar Pradesh	—	5	17	—
Vindhya Pradesh	—	2	2	—
W. Bengal	2	1	2	2
Total,	30	.49	67	30

All the training classes were conducted by the Central Office at Nadiad. Three States level training classes were conducted in the year 1955-56, two in the State of Saurashtra and one in the State of Hyderabad. The number of trainees were 16 and 14 respectively.

PALM GUR INDUSTRY

The Palm Gur Industry affords part-time and full-time occupation to villagers during the Palm Gur season, when they are generally involuntarily idle due to the slackening of agricultural operations. It also facilitates productive use of the idle Palm wealth of the country, and is a counter-part of the policy of prohibition, inasmuch as Palm Gur Industry provides an alternative occupation to the Tapper community. It is for these reasons that the Palm Gur Industry has been included in the National Development Plans. An amount of Rs. 5 crores has been provided for its all round development during the Second Five Year Plan.

Palm Gur Development Work which was under the care of the Union Ministry of Food and Agriculture since early 1948, was brought within the purview of the All India Khadi and Village Industries Board in February 1954.

While under the Union Ministry of Food and Agriculture Plam Gur Development Schemes were in operation in the following 17 States :

1) Ajmer, (10) Mysore
2) Andhra, (11) Orissa,
3) Assam, (12) Rajashtan,
4) Bhopal, (13) Saurashtra,
5) Bihar, (14) Travancore-Cochin,
6) Bombay, (15) Uttar Pradesh,
7) Hyderabad, (16) Vindhya Pradesh, and
8) Madhya Bharat, (17) West Bengal.
9) Madras,

Palm Gur Development Schemes in these States used to be formulated by the State Governments on the basis of the local resources and scope for development. On approval of these schemes 50 per cent of the total recurring expenditure used to be met by the Centre. Such financial contribution made by the centre during the last 3 years is shown below:

1953-54 (for the States of Andhra, Bihar, Bombay, Hyderabad, Madras, Mysore, Rajasthan, Saurashtra, Travancore-Cochin, Utter Pradesh, Orissa and West Bengal)	Rs. 4,10,648/-
1954-55 (16 States)	Rs. 6,40,588/-
1955-56 (12 States)	Rs. 4,71,614/-

March Of The Industry

During the year 1953-54, the cost of Palm Gur Development Schemes in the Part 'B' States of Madhya Bharat and Assam for the Scheduled Adivasi areas

and the Part 'C' States of Ajmer and Bhopal amounting to Rs. 51,900 was made by Central Government. Palm Gur Training Centres in the States of Madhya Bharat, Assam, Saurashtra and Rajasthan, in the Scheduled Adiwasi areas, were financed by the Ministry of Home Affairs, Government of India. In addition to the Development Schemes implemented by the State Governments, which consisted largely of training, production and propaganda, Palm Gur Development work was taken up in the Community Projects Blocks also, under the Community Project Administration. It was introduced by the Administration in 19 Projects and Blocks situated in the States of Bihar, Hyderabad, Madras, Rajasthan, Travancore-Cochin and West Bengal in the year 1953-1954.

The production of Palm Gur in the country during 1953-54 was about 60,000 tons and the employment afforded by the industry was about 1,50,000 whole-time Tappers for the season and 85,000 others.

For assisting State Governments in opening marketing avenues for Palm Gur and other Palm products produced in their States, loans on easy terms were granted to State Governments. Since it was observed that there were many registered institutions interested in rural industrialisation and also Co-operative Societies, financial assistance to the tune of Rs. 45,395 as grant and Rs. 41,935 as loan was extented to 8 such institntions in different States in the year 1954-55.

In the year 1955-56, such financial aid in the shape of grants and loans was Rs. 7,66,465 and Rs. 4,98,750 respectively.

Central Co-ordinaton

Following is a brief outline of the development work directly carried on by the All India Khadi and Villaga Industries Board, Central Co-ordination Office:

The Central Co-ordination Office at Bombay recommends financial assisatnce on approved schemes for the development work carried on by the State Governments, Co-operatives and private institutions, to Central Government and periodically inspects the implementation of these schemes. It renders technical guidance, helps in removing legal handicaps; endeavours at elimination of middle men by forming federations of Palm Gur Co-operatives for the Districts and also for the States; imparts training at the Central training Institute, Bharatiya Tad Gud Shilpa Bhavan, in advance course in Palm Gur Industry; helps in the export of Palm Gur to countries such as Ceylon; procures Government owned trees at nominal rent and fuel from Government owned forests; arranges supplies of raw materials such as iron sheets, coal, chemicals, propaganda equipments and machinery required for the pursuit of the industry; promotes healthy competition by awarding shields; demonstrate processes through peripatetic parties throughout the country, and participates in major

exhibitions, and fairs and conducts propaganda both cultural and audio-visual.

A clearing-house of information bearing on the Industry called 'Gyan Mandir' was also set up in the year 1955—56 in the Bombay Office.

Annual Conferences

Two different kinds of gatherings of selected Palm Gur Workers and Organisers from all over the country have been an annual feature of the industry. These are the annual All India Palm Gur Workers Conference, where mainly the developmental and organisational problems and aspects of the industry are discussed; the second is the Annual Palm Gur Workers Refresher Course, where the latest advances made in the technical and other aspects of the industry are demonstrated. To these two gatherings, almost every State deputes more than one of its expert workers at different levels, right down to the independent Palm Gur producer and the women Palm Gur boilers. At these two gatherings full-fledged exhibitions of equipments and processes are also organised.

Shilpa Bhavan

The Bharatiya Tad Gud Shilpa Bhavan, Dahanu, Bombay State, now imparts instruction in the following courses :

1. Organiser's course.
2. Instructor's course.

The instruction imparted is of an advanced standard. The Bhavan has also added an artisans, course (specialised course) to its curriculum. The number of candidates trained in the various courses during the years 1953-54, 54-55 and 55-56 was 16, 52 and 203 respectively.

The Bhavan is also conducting the following activities:-

I. Running Trading depots for selling Neera, Gur, Sugar, Neeraprash and other palm products.

II. Scientific studies and investigational work on :

(1) Furnaces

(2) Pans and gur--making implements

(3) Evolution of simple and economic processes of manufacturing gur, sugar, candy and other palm products.

(4) Evolution of scientific tapping methods.

(5) Preservation of Neera.

(6) Storage of neera, gur, sugar and other Palm products.

(7) Studies on the fundamental and analytical techniques of Palm juices and other Palm molasses.

(8) Economic utilisation of Palm molasses.

(9) Various botanical aspects of the industry.

III. Supplies :

(1) Moulds and blocks for gur.

(2) Indicator Paper.

(3) Blue-prints of furnaces, implements, flow diagrams of manufacturing processes, etc.
(4) Palm seeds for plantation.

IV. Collects and transmits technical information on the industry.

V. A technical show-room has been set up at the Bhavan.

In 1955-56 the Director presented a paper on 'Palm Sugar' to the 9th International Sugar Technologists Conference at Delhi.

Pilot Stations

For purposes of demonstrating the different aspects of and collecting data on the economics and other potentialities of the 4 different kinds of sugar yielding palms, 4 pilot Model Demonstration Stations were established in September 1954, for the Date Palm at Poona, for the Palmyrah Palm at Udangudi, Dist. Tirunelveli, Madras, for the Coconut Palm at Kasargod, Dist. South Kanara, Madras, for the Sago Palm at Kunnamkulam, Travancore-Cochin State. These Stations serve as broadcasting centres for the industry. These Stations are also attached to trading depots for palm products. The two Stations in Madras State and the one in Travancore-Cochin State, which are situated in predominantly palm jaggery producing areas of those States, are producing and selling plam leaf, plam fibre, palm timber, utility articles, including domestic and other articles of furniture etc. The Stations demonstrate improved processes and supply improved tools and implements. These Stations also undertake training of State Government and non-Government personnel concerned with the industry. The training at these Stations is largely conducted in the language of the region for the benefits of the local artisans. The Stations have proved to be very popular and demands for multiplying their number have been received from the States where the Stations are situated and from other States as well.

Demonstration Squad.

The Central Demonstration Squad is a group of demonstrators consisting of an equal number of advanced trained Instructor Demonstrators and artisan-class Tapper Demonstrators. At present the group consists of 10 Demonstrators, each batch of 2 having been deputed by the States of Hyderabad, Madras, West Bengal, Rajasthan and the Central Palm Gur Section. Recently Saurashtra and Bombay States have also agreed to depute one such batch. The Squad thus consists of members conversant with different languages of the country and prosess experience of work in different States,

The Squad conducts sales of different palm products, including neera, at all the exhibitions it participates in, and thus help to expand the market for Palm products.

Training Schemes

Before 1955-56 very little Palm Gur Development work has been done in the 4 States of Madhya Bharat, Madhya Pradesh, Punjab and Pepsu due largely to paucity of technically trained personnel to take up the work. Hence Training Schemes were introduced in 1955-56 at a cost of Rs. 1,50,000 in all the 4 States to train 100 persons in each of them. This target of 400 persons has been attained. Majority of ex-trainess are reported to be willing to take up independent production of Palm Gur during the current year. Approval of the Government of India to the continuance of the Training Schemes during the year 1956-57 has been received.

Trading Schemes :

In addition to the Trading Schemes being conducted as part of the activities of the 4 Pilot Model Demonstration Stations, the Bharatiya Tad Gud Shilpa Bhavan and the Central Co-ordination Office at Bombay, in the State of Madras 3 Palm Products Sales Depots have been opened at Madras, Madurai and Salem. These depots serve as show-windows for the Palm products of the Madras State, which is the largest producer of all kinds of palm products. At each of these depots, neera sales will also be organised on up to-date lines. Modern means of cooling and storage will be adopted. Equipments and tools of improved variety will be made available for sale at these depots. An amount of Rs. 80,000 has been sanctioned for financing the 3 depots.

Co-Operatives

Palm Gur Industry, perhaps, has the largest number of Co-operative Societies through which production and marketing of palm jaggry and other products are organised, specially in the Southern States of the country. The number of Co-operative societies existing during the last 3 years is given below :

1953-54	—	2,250
1954-55	—	2,290
1955-56	—	2,555

These Co-operatives are not only Primary Producer's Societies, but also Marketing Societies, covering parts of Districts, whole Districts and entire States in the form of States Federations. A National Apex Federation of the Co-operatives is in the course of formation to which all States Federations will be affiliated. Co-operation of social workers and organisations is being enlisted in the management of the Federations.

With a view to assessing the possibilities of reviving Palm Gur Industry in the Andaman Islands, a survey was undertaken during the current year and interest created in the local Administration for introducing the Industry.

BEE-KEEPING INDUSTRY

The Bee-keeping scheme for 1956--57 provides for the starting of 5 additional area offices, 100 substations, 15 model apiaries; 50 school apiaries; Assistance to 15 educated persons for setting up apiaries and grant to 25 planters. The 15 area offices, 150 sub-stations, 25 model apiaries and 50 school apiaries started during the previous years are to continue. Thus the total number of area office and substations treated to function at the end of the year 1956--57 including those estsblished during 1953--1954, 1954-55 and '55-56 are 20 and 250 respectively.

They are locatedas follows:

	Year of establishing	Region	No. of sub-stations: Existing	No. of sub-stations: Allotted for 56-57	Model apiaries: Existing	Model apiaries: Allotted for 56-57
1.	1953-54	Bombay Maharashtra	10	5	2	1
2.	,,	Bombay Karnatak	15	5	3	1
3.	,,	Mysore	17	10	2	1
4.	,,	Travancore Cochin	15	10	3	1
5.	,,	Madras South	15	10	1	1
6.	,,	Orissa	8	—	1	-
7.	,,	Bihar	10	—	1	1
8.	1954-55	Coorg	10	5	2	1
9.	,,	Madras West	15	10	1	1
10.	,,	Madhya Pradesh, subsequently transferred to other areas.	10	—	1	1
11.	,,	Andhra	5	5	-	1
12.	,,	Bengal	5	5	-	-
13.	,,	Assam	5	—	-	-
14.	,,	U. P.	5	10	1	-
15.	,,	Kashmir	5	—	-	1
16.	1956-57	Nilgiri	—	5	-	-
17.	,,	Hyderabad	—	5	1	-
18.	,,	Madhya Bharat	—	5	-	-
19.	,,	Punjab	—	5	-	-
20.	,,	Area to be decided	—	5	-	-
			150	100	19	11
		Saurashtra			2	
		Rajasthan			1	
		Greater Bombay			1	
		Gujarat			2	
			150	1000	25	11

Arrangement have been made for starting the work in the new areas.

The following table would show the progress so far achieved.

Details of progress,

	1953-54	1954-55	1955-56		1956-57	
	Target Achievment	Target Achievment	Target Achievment		Target Achievment for 56-57	upto 31-7-56
No. of area offices	7	10	15	15	20	
No. of sub-stations	35	100	150	145	250	150
No. of colonies	800	8560	17500	16545	40000	20590
Production of honey	—	20250	60000	46100	100000	68823
No. of Beekeepers	232	2660	4000	4704	7500	6164
Model Apiaries	—	25	—	25	40	25
School with beekeeping	—	50	—	50	100	50
Full time beekeepers (Commercial apiary men)	—	5	—	5	30	5
Planters in Beekeeping	—	—	—	—	25	—
Employment full time	234	102	—	218	400	218
Employment (part--time)	232	2660	—	4704	7500	6164
Staff employed in the Board service	34	102	246	218	404	248
Training	124	100	260	223	210	—
Total amount sanctioned	Rs. 2,11,835/-	3,35,075		5,49,820		10,88,780
Grant of subsidy	,, 1,10,842/-	2,14,610		4.68,969		
Grant of loan	,, 25,5000/-	5,000		1.10,500		

An idea of the targets fixed and those attained can be had from the following tables ;

Table I

Targets fixed & reached

Beekeeping Scheme for 1956-57	Targets	Attainments
Starting of area offices	5	-
Starting of substations	100	-
Appointments :		
Apiarists	5	-
Senior fieldmen	5	-
Junior fieldmen	120	24
Surveyor	1	-
Apiary keepers	15	7
Apiary Assistants	15	-
Peons	16	-
Chief Marketing Officer	1	-
Marketing Officer	1	-
Manufacture of hives for:		
Sub-stations	32,500	
Model apiary	600	
Manufacture of implements etc. for		
Area Office: value	Rs. 9.000	
Sub-stations	Rs. 20,000	
Model apiaries	Rs. 15,000	

Table II

Amount sanctioned for the year and spent till 31.8.56

Establishment-expenses	Sanctioned	Spent
	Rs.	Rs.
Supply of equipment to area offices (5)	9,000	-
Equipment for 500 substations	20,000	-
Model apiaries, hives and equipment	27,000	-
Equipment for Beekeeping classes in schools	25,000	-
Working Capital : Subsidies :		
(a) for new sub-stations	1,00,000	-
(b) for old sub-stations	2,25,000	-
Grants :		
(i) Rent for new subs-tions & area offices	9,875	--
(ii) Rent for old area office & substa-tions	13,500	--
(iii) Rent for old and new model apia-ries	11,625	-
(iv) Contingencies for area offices subs-tations	16,850	--
(v) Training of apia. rists & fieldmen	35,100	-
(vi) Assistance to educated persons	16,500	-
(vit) Publicity, propa-ganda	50,000	-
(viii) Trainig in Indus-trial uses of honey	8,000	--
(ix) Pedigree Breeding station	13,000	--

Contd...

Grants.

(x) Grant to planters (25) 30000/- -

(xi) Improvement of implements 50,000/- -

(xii) Grant to existing substations 20,000/ -

(xiii) Loan 5.12,500/ —

Apart from above provision for the appointment of new staff and continuation of the existing staff is also made.

Note: The blank in the "attainments" and "spent" columes in the two Tables is easily explained. Government approval and allotment of funds were communicated to the Board only on 20.8.1956. There has, thus been hardly any time to act on the schemes during the period which this report covers. **— Editor.**

VILLAGE OIL INDUSTRIES

The programme of the All India Khadi and Village Industries Board is for development of the Village Oil Industry of financial assistance in the following ways:

1. A rebate at the rate of Rs. 2-8-0 per md. of oil is paid to consumers.
2. Interest free loan is given to stock oilseeds.
3. Subsidy and loan for purchase of improved ghanis.
4. Free services of carpenters to repair ghanis and instal improved ghanis.
5. Facilities for training telis in the technique of working of improved ghanis at the Model Demonstration Centres.
6. Establishing Model Ghani Centres which serve as production-cum-training units.
7. Popularisation of the industry through exhibitions and conferences.

To enable the teli to sell ghani oil in competition with mill oil, the Board gives a rebate at the rate of As. 0-1-0 per seer of oil sold. The selling agencies are recognised by the Board to purchase the oil from registered ghanis. The sales rebate is paid only on oil from registered ghanis.

The payment of rebate on ghani oil was taken up from 1954-55. The target fixed for 1955-56 was to register 10,000 ghanis and to organise 1,000 selling agencies. In the beginning of the year, there were 423 registered ghanis, 148 selling agencies, giving work to 1,142 persons. During 1955-56 6,644 ghanis were registered and 679 recognised selling agencies were set up. The total number of all these at the end of March 1956 stood as follows:

1. No. of registered ghanis		7,067
2. No. of recognised agenices		827
3. No. of person getting full time employment		14,976
4. Production of oil in mds.		3,38,360
5. Production of oil cakes in mds.		5, 07,540
6. Value of oil produced in registered ghanis.	Rs.	2,03,00,000
7. Value of oil cakes	Rs.	50,75,400

The Government had sanctioned Rs. 5,00,000 for payment of rebate. The amount disbursed was Rs. 1,73,738-13-0 including advance paid to State Boards.

Loans To Stock Oilseeds

All over India there are about 400 Oilmen's Co-operative Societies. But they havelittle share capital. The co-operative Department hesitates to recommend larger funds to these Co-operative Societies. Generally they get loans upto two to three times their share capital, which is only sufficint for one or two days work. The borrowing limit is fixed by Co-operative Department and the Board cannot advance funds over that. Due to fluctuation in prices, the local banks hesitate to stock oilseeds on hypothecation. The registered institutions engaged mainly in Khadi work and they find it difficult to divert funds for stocking oilseeds for the telis. Unless oil seeds supply is guaranteed to the telis, there is no hope for larger production by ghanis.

The Government of India had placed with the Board a sum of Rs. 9,73,000 for advancing loans to stock oilseeds. The Board advanced Rs. 10,75,650 as loans to 37 registered institutions and 9 Co-operattve Societies to stock oil-seeds. These loans will help 4,300 ghanis in adequate supply of oil-seeds. The State--cum--Institution--wise distribution of loans is as follows:

Name of the Institution		Amount	State
1. Consumers Coop. Society Ltd., Baran	Rs.	12,000	Rajasthan
2. Hadoti Khadi Gramodyog Sangh, Baran, Kotah	,,	30,000	,,
3. Seva Sadan, Bhilwara	,,	5,000	,,
4. Tel Utpadak Sahakari Samithi Ltd., Gohad, Bind	,,	2,000	M. Bharat
5. Madhubani Goshala Committee, P. O. Madhubani, Dt. Dharbangha.	,,	2,000	Bihar
6. Tel Utpadak Sahakari Samithi, Biaora	,,	1,500	M. Bharat
7. Uma Agricultural & Dairy Farm Coop. Society Ltd., Bargarh	,,	2,000	Orissa
8. Rajgram Bahu Udhesya Mulak Sambay Samithi, Rajgram	,,	2,000	W. Bengal
9. Shri Gandhi Seva Sadhan, Asafpur	,,	2,000	U. Pradesh
10. Bihar Khadi Samithi, Muzaffarpur	,,	30,000	Bihar
11. Central Relief Committee, Ambala	,,	2,000	Punjab
12. Gramodyog Sangh, P. O. Siliyari, Raipur.	,,	5,000	M. Pradesh
13. Khadi & V. I. Board, Shillong	,,	5,000	Assam
14. Ajmer Merwara Gram Seva Mandal Coop. M. P. S. Ltd., Ajmer	,,	5,000	Ajmer
15. Kasturba Seva Mandir, Rajpura	,,	12.500	Pepsu
16. Adim Jathi Seva Mandal, Ranchi	,,	20,000	Bihar
17. Sarvodaya Seva Sadan, P. O. Bimpur Dt. Midnapur	,,	5,000	W. Bengal
18. Model Village Industries Centre, Tumkur.	,,	2,000	Mysore
19. Sholapur Gramodyog Telghana Sahakari Society Ltd., Sholapur	,,	25,000	Bombay
20. Madhya Bharat Khadi V. I. Board, Ujjain	,,	2,00,000	M. Bharat
21. Kasturba Seva Mandir, Rajpura	,,	12,500	Pepsu

Contd....

Name of the Institution		Amount	State
22. Seva Sangh, P. O. Contai, Midnapur	"	2,000	W. Bengal
23. Saurashtra Khadi & V. I. Board, Rajkot	"	50,000	Saurashtra
24. Rajasthan Khadi & V. I. Board	"	1,00,000	Rajasthan
25. Saghan Kshetra Vikas Samiti, Ajagara.	"	30,000	U. Pradesh
26. Mahishadala Tana Gramodyog Samiti, Village Tejpur, P. O. Rajgram, Midnapur	"	5,000	W. Bengal
27. Kanka Durga Ghani Oil Producing and Sale Coop. Society Ltd., Nellore	"	2,000	Andhra
28. Hyderabad Khadi & V. I. Board	"	50,000	Hyderabad
29. Samagra Grama Seva Samiti, Sanwar	"	5,000	Rajasthan
30. Muddadi Kshetra Samiti, N. Malabar	"	10,000	Madras
31. Naduvallur Gramodyog Sangh, Kozhikode	"	2,000	Madras
32. Rajasthan Khadi & V. I- Mandal, Govindgad, Malikhpur	"	2,000	Rajasthan
33. Hansa Khadi Gramodyog Sangh	"	5,000	Bihar
34. Gramodyog Sangh, Chikkrasal, N. Malabar	"	1,500	Madras
35. Khadi Gramodyog Samiti, Pariharpur	"	2,000	W. Bengal
36. Gandhi Seva Sadan, Perur	"	650	Madras
37. Community Project Officer, Erode	"	1,000	Madras
38. Saurashtra Khadi & V. I. Board	"	50,000	Saurashtra
39. Rajasthan Khadi, & V. I Board	"	1,50,000	Rajasthan
40. Saghna Kshetra Vikas Mandal, Broach	"	5,000	Bombay
41. Tekali Bazar Matri Seva Sangh	"	5,000	W. Bengal
42. Brahmpur Thumbathong Oil Crushing Ind. Coop. Society, Imphal	"	15,000	Manipur
43. Rajasthan Khadi & V. I. Board	"	1,00,000	Rajasthan
44. Gram Swavalambi Vidyalaya, Ranivan	"	2,000	U. Pradesh
45. Kalegaon Ghani Coop. Society Ltd.,	"	5,000	Orissa
46. Bombay V. I. Board	"	75,000	Bombay
		Rs. 10,75,650	

Improved Ghanis

There are various types of improved ghanis in India, namely, the Wardha Ghani, the Bihar Ghani, the Nutan Ghani, the Kallupatti Ghani, the Dahanu Ghani. The improved ghani is standardised on the following basis :

1. Crushing capaticity 20 lbs.
2. Duration of one hour per charge, employing one bullock.
3. Percentage of oil (Seasamum and groundnut) 45 per cent.
4. Should be able to crush all varieties of oilseeds.
5. Cost of ghani Rs. 300 or thereabout.

A large demand for improved ghanis has been created. To meet the large demand of improved ghanis, institutions, model centres and cooperative and societies have been approached and arrangements made to stock seasoned wood to manufacture improved ghanis in large numbers. During the year six centres were approved, bringing the total to twenty. These centres have a capacity of manufacturing about 2,800 ghanis.

In the years 1953-54 and 1954-55, the Board disbursed funds for installation of ghanis. During the year 1955-56 the Government of India sanctioned subsidies for 1,076 ghanis and the whole amount has been disbursed. The manufacturing centres were working to capacity and delivered 417 ghanis.

The Board advanced loans to institutions to enable them to supply ghanis to telis on a hire purchase basis. The loan for improved ghanis amounted to Rs. 85,050 for 567 ghanis.

Model Centres

Training of telis in working improved ghanis, supply of spare parts of ghanis etc, are some of the functions of the Model Centres which are run by registered institutions or Cooperative Societies. The Board gives funds for constructing a building, for purchasing equipment, ghanis and bullocks and necessary working capital as a loan. The Model Centre is expected to instal at least 15 improved ghanis in and around the area every year. Before granting a Model Centre, it is ascertained whether traditional ghanis are working in the area so that fhe telis could take advantage of the model centre to the fullest extent. The model centre is also expected to stock oilseeds for the requirements of individual telis, till the co-operative societies are formed or other arrangements made. The Board provides one inspector and one trained carpenter at the centre. Traditional ghanis are repaired free of charge and improved ghanis installed without extra expenditure on carpentry charges. Telis who are going to instal improved ghanis are trained at the Model Centre and given Rs. 30 as a stipend during the period of training. The model centres are run on a production-cum-demonstration basis, and

they have to be self-supporting. During the year 1954-55, 34 model centres were actually functioning. During 1955-56 funds for seventy model ghani centres were granted out of which 26 centres have completed preliminaries and started production. Thus on March 31, 1956 sixty were in full production out of a total 104.

The inspectors at the Model Centres are expected to visit the rsgistered ghanis and selling agencies in two or three districts, till all the districts have been granted model centres. In all at the end of March, 1959 there were 7,067 registered ghanis and 65 inspectors.

Training Centres

The Board's programme is to establish about 300 Model Centres and appoint 2,000 inspectors to assist 2 lakhs of ghanis. For this trained persons are necessary. Three training centres to train inspectors and carpenters have been opened at:

1. Gandhi Ashram Meerut, U. P.
2. Gandhi Niketan Ashram, T. Kallupati, Madras.
3. Bihar Khadi Gramodyog Sangh, Muzaffarpur, (Bihar).

The inspector's course is for six months and stipends are paid at Rs. 50/- per month for each inspector-trainee. The carpenter's course is 3 months and stipends are paid at Rs 75/- per month: 97 inspectors and 36 carpenters have completed training.

Teli Conferences

Teli conferences were organised in various places. Prominent persons were invited to inaugurate and preside over such conferences. At these conferences problems of the industry and the needs of the telis were discussed. The emphasis has always been on the need for appropiate operative conditions.

Organisation

For facilitating systematic organisation, the country has been divided into three zones with an Assistant Organiser for each zone. The zones are :

1. Southern & Western : Comprising of Bombay, Saurashtra Kutch, Hyderabad, Mysore, Andhra, Madras, Travancore - Cochin, Coorg.

2. Eastern Zone : Comprising of Madhya Pradesh, Orissa, West Bengal, Assam, Bihar, Manipur, Tripura, N. E. S. Agency.

3. Northern Zone : Comprising of Rajasthan, West Punjab, Himachal, Pradesh Jammu and Kashmir, Delhi, Uttar Pradesh, Bhopal, Madhya Bharat.

In each major State the Central Board has appointed a Development Officer for Village Oil Industry. He is the coordinating foficer. He organises the work in the State and coordinates the activities between the States and Central Boards.

NON-EDIBLE OILS AND SOAP INDUSTRY

This is one of the Village Industries placed under the purview of the All India Khadi and Village Industries Board for development. The object is providing opportunities of productive employment in the countryside and, at the same time, facilitate the release of more edible oils from industrial uses for human consumption. A rough estimate made two years ago showed that employment potential in the industry is of the following order :

1. Collection of non--edible oil seeds : 2,00,000
2. Oil crushing 60,000.
3. Soap--making 30,000

The list of non-edible oilseeds is not small. The few wellknown ones in vogue are : Neem, Karanja, Undi, Castor, Tobacco Seed, Mahuwa, Pisa, Khakhan, Nahor, Rayna, Remeli, Cashew, Kamal, Kusum, Bendi, Nagchampa, Charoli, Pulung, Bobbi etc.

The Goverenment of India has extended financial assistance for organising and developing the non-edible oils and soap industry. The Board has formulated programmes for training and production. A number of qualified technical people have been engaged and a number of production units have gone into operation.

Each one of these types has been known to have some usefulness for indutrial purposes, like soap-making, varnishes and lubricants. Although the process of extraction of non-edible oils from neem, karanja, mahuwa, etc; by village ghanis was not unknown, it could not be developed in the past for lack of proper organisation. In recent times, it has been realised that the collection and utilisation of non-edible oilseeds could considerably add to the oil resources of the country and that some of these oils can be utilised for the manufacture of quality soaps.

Progress had been made in regard to the training of the personnel to man the industry. In addition to two training centres already working, arrangements were made to start two more training centres, one at Gandhi Gramodyog Mandir, Amravati which started working from 1st Feb.'56 and the other at Gandhi Niketan Ashram, T. Kallupatti, Madurai Dist. Madras State. The four training centres are:

1. Kora Gramodyoga Kendra, Borivli, Dist. Thana, Bombay.
2. Maharashtra Seva Sangh Soap Training Centre, Ekhatpur, via Sangola, Dist. Sholapur, Bombay.
3. Gandhi Gramodyog Mandir, Madhya Pradesh.
4. Gandhi Niketan Ashram, T. Kallupatti, Madras.

Five more training centres have been proposed to be set up during 1956-1957.

The following Table shows the the number of persons trained and the expenditure incurred on this account :

S. No.	Type of course	Traget figure	No.	Stipend	Tuition fee	Rly.Fare
1.	Supervisor-cum-chemist	35	39	20,820/-	11,925	3,921/6/
2.	Oil pressing Managres	150	38			
3.	Apprentice	100	96			

Five Production--cum-Model Centres were sanctioned at the end of 1953-54 and all of them have started production. Of the 19 full units allotted during 1954-55 to 22 institutions some of them completed the erection work of their oil-pressing and soap centres by the end of December '55. It is expected that they will all start production as soon as they collect the neem seeds in the coming season.

The programme for the year 1955-56 included starting centres equivalent to 60 full units. The money aids disbursed are shown in the Table below:

Year	No. of centres	Grant plus chemist salary	Loans	Total
1953-54	5	97,000	1,65,000	2,65,000
1954-55	22	3,47,150	6,15,500	9,62,650
1955-56	94	10,27,199/8/-	22,01,000/8/-	32,29,200/8/-
Total	121	14,71,349/8/-	29,81,500/8/-	44,53,850/8/-

The cost of production of neem oil at the centres had varied from Rs. 35/- to Rs, 45/- per md. and the production cost of non-edible soap from Rs. 7-9 to -9-3 per lb. The average cost of production of the centres is 0-8-7 per lb and the average selling price of soap is Rs. 0-10-4 per lb.

The production of soap during 1956-57 will be nearly 7000 mds. Every effort has been made to popularise activities by Co-operative Societies. In all 23 Societies are now engaged in the work. The amounts disbursed to Co-operative Societies during 1954-55 and 55-56 are as follows :

	1954-55	1955-56
1. Grant: Capital investment	1,06,600	1,31,437-8-0
2. Grants Chemists salary	1,800	7,200-0-0
3. Interest free Loans	1,06,600	1,88,437-8-0
4. Working Capital	80,00	2,25,000-0-0
5. Production	83,770 lbs	2,63,284 lbs

A number of Research Schemes have been received for carrying on work under the head "Improvements and Experiments".

After scrutiny, two schemes were approved, for giving assistance.

With the increase in the number of production centres it was found imperative that all the production centres should evolve a common policy programme which would not only be beneficial to themselves, but will also enable the Board to consolidate the position of the industry. With this view a conference, the first of its kind, of all the production centres working under the Board was convened at Amaravati on 27th, 28th and 29th Feb. 1956.

Achievments of Tragets In 1953-54, 54-55, 55-56

S. No.	1953-54		1954-55		1955-56	
	Target	Achievement	Target	Achievement	Target	Achievement
I. Production of soap in lbs.	280000	93364	1339520	438946	4639040	...
II. Quantity of soap sold in lbs.	...	91396	..	352990	..	...
III. Sale Value in Rs.		45441/5/-		228558/15/6/-	...	...
IV. Employment						
i) Full-time	100	...	476	203	2215	..
ii) Seed-Collection	1200	..	5760	1888	19920	..
V. Training						
i) Supervisor-cum-chemist	...	...	35	39	100	..
ii) Oil-pressing Manager	..	...	150	38	300	..
iii) Apprentices	..	..	100	96	200	..
iv) Teachers	...	..	...	...	100	..
VI. No. of trained personnel employed	..	..	..	155	..	...

DISBURSEMENT MADE
1953-54, 54-55,

	Items,	1953-54 Sanctions	Disbursement	1954-55 Sanctions
1.	Grants	85,000/-	85,000	3,55,000
2.	Interest Free Loan	85,000/-	85,000	3,55,000
3.	Working Capital	1,00,000/-	80,000	4,00,000
4.	Chemists' Salary	12,000	12,000	18,000
5.	Production Subsidy	-	-	32,000
6.	Grant (Training Centre)			
	i. Stipends	-	36,300	36,300
	ii. Tuition Fees	-	-	21,375
	iii. T.A. to trainees	-	-	-
7.	Propaganda	-	-	-
8.	Research	-	-	-
9.	Loan to Existing Centres	-	-	-

HAND-MADE PAPER INDUSTRY

The Hand-Made Paper Industry of India has survived the onslaught of the large-scale industry though in an attenuated and crippled form. The hand-made paper was considered to be strong and durable due to its inherent quality due to the processing in manufacture. Special varieties of paper such as drawing, filter, invitation cards, doaumentary paper, currency papers require the touch of human hands at various stages of manufacture and, therefore, even today, in foreign countries, such papers are lifted by hand. So, when in Japan, though highly industrialised and mechanised, the hand-made paper industry is carried on by nearly 20,000 families. The bark of the plant is used as a basic raw material. All the processes are done by hand and the finest] quality of paper is produced. There are various industrial uses of hand-made paper.

In India we had a number of places where *kagadis* carried on their trade from generation to generation. It was a family occupation in which old and young alike were engaged. With the coming of the British the hand-made paper industry deteriorated and all but the most determined among the *kagadis* were forced out of the occupation and trade. The rise of large paper mills in India further hit the industry. Foreign paper valued at Rs. 15

DURING THE YEARS
55-56, 56-57

	1955-56		1956-57	
Disbursement	Sanctions	Disbursement	Sanctions	Disbursement
3,37,250	10,05,000	9,92.999/8/	13,26,000	–
3,37,250	10,05,000	9,92,999/8/	11,55,000	–
2,96,000	12,00,000	11,69,000/0/	12,00,000	–
99.000	36,000	34,200	–	–
–	1,28,000	–	2,28,000	–
32,520	36,300	20,920	82,000	–
2,625	21,375	11,925	47,500	–
–	18,525	3,931	35,000	–
–	15,000	4,533/7/-	10,000	–
–	20,000	3,402/13/-	25,000	–
–	4,00,000	40,000	5,00,000	–

crores is now imported every year. Large quantities of pulp is imported besides, to run the Paper Mills, because they are finding it difficult to procure raw materials such as bamboo, grass, rags, waste paper etc. All these materials lie scattered in the country and the Indian mills are unable to make use of them probably due to the heavy cost involved in their collection and transport. This factor has obviously arrested rapid growth of the paper mill industry in the country. This is well illustrated by the fact that even after 50 years of effort there are only 20 mills in India producing hardly one half of the country's requirements.

Per capita consumption of paper in India is 1.1 lbs. The demand will progressively increase with the increase in the literacy of our people. The time may not be far distant when per capita requirement will go up to 350 lbs. In fact the literacy drive is gathering momentum and the masses are eager to go with to high speed learn to read and write. It is excepted that in the next five years per capita consumption of paper mill rise from 1.1 to 10 lbs. There is, therefore, urgent need to augment the paper resources of the country. As the mills will not be able to achieve this through the utilisation of the raw materials, the manufacture of paper will have to be undertaken by decentralised units. The handmade paper industry has, consequently, great importance as it alone will be in a position to spread out in small units

and make effective use of the scattered raw materials. There are some 200 types of fibrous materials which go waste. They can be converted into paper. All the processes of manufacture can be carried on by ordinary intellgent labour. A number of technicians are being trained to run the paper centres every year. Each district or a tehsil town can have paper units the erection of which can be done in a very short time. Collection of raw materials and marketing of paper locally will solve one of the knotty problems of paper industry and in addition will provide employment to more people.

When many of the processes are to be carried out by hand, hand-made paper is bound to be costlier than machine made paper. The difference is narrowed down in the case of high grade qualities of paper. The price of paper depends upon the type of raw materials used. The rag paper costs the highest, while paper produced from waste paper costs the lowest. Intermixture of raw materials will lower the cost to that extent. Higher quality of paper requires costlier raw materials and larger use of chemicals and more labour. In certain varieties of paper such as blotting and card board and cover paper, the cost is comparable to the mill product of similar sorts.

Varieties of Paper	Foreign	Indian mill made	(price per lb)
Drawing	3-12-0	–	3-0-0
	6- 8-0	–	3-4-0
Filter	3- 0-0	–	2-0-0
Bond paper	3- 8-0	–	2-12-0
Utility	1- 0-0	0-12-0	1-2-0
Blotting A	2 -6-5	–	1-4-0
" B	1- 7-0	1- 4-0	0-14-0
Ordinary boards		–	
& or straw boards		38 per cwt.	36 per cwt.

In many States the State Governments have started paper centres on a demonstration-cum-training basis. Where-ever hereditary artisans were still in the trade, the All India Khadi and Village Industries Board has organiaed their co-operative societies and has given all types of facilities, financial as well as technical. Some of the constructive work organisations have also taken up this work. The Board gives 50 per cent grant and 50 per cent loan on purchase of equipment and machinery. Loan for working capital, subsidy on production (in case the centres have made losses), and marketing assistance are other types of help that the Board gives. Schools are given grants to train

craft teachers and to start paper making as a craft.

During the last 3 years, the Board has spent the following amounts in reviving the industry:-

	1953-54		1954-55		1955-56	
	No. of centres.	Amount	No. of centres.	Amount	No. of centres.	Amount
For equipment & Machinery	8	1,26,000/-	19	2,96,000/-	8	2,65,000
Loan as working capital		Nil		79,300/-		1,98,029
Production subsidy		30,296/11/9		31,820/11/5		3,175/13
Supply of paper against Govt. order				47,730/3/0		110237/12
Grant to schools	40	20,000/-	45	22,500/-	47	44,727/8

The centres require technical help and, therefore, in the last year 15 graduates and 30 operatives were trained. Out of these, the Board has appointed several as technical supervisors, and the quality of the paper produced is now gradually improving.

During the last 3 years the number of centres, employment and production have gone up as shown below;

Year	No. of centres	Production in tons	Value in Rs.	No. of persons employed
1953-54	35	127	5,60,000/-	944
1954-55	50	400	11,42,327/-	1,500
1955-56	70	661	17,67,151/-	2,347

Most of the centres work according to the orders received by them. The stock on hand is very little. In India tradesman have not taken kindly to the hand-made paper industry and, therefore, production has to be restricted to actual demand. High-grade paper is bought by the Government at the Centre and in the States. The other papers, namely, blotting, card paper, cover paper and card boards, are sold in the open market.

In the current financial year the Government have sanctioned larger amounts for the production centres, and funds are now being supplied to them. The progress achieved from April to June 1956 can be gauged from the following figures:

Progress from April to June 1956

Item	No. of centres	Production lbs.	Value	Sales lbs.	Value	Employment
Actual reports received	37	3,48,309	1,59,093	1,32631	1,43781	1878
Reports not received But estimate based on last years working	20	40,000	20,000	40,000	20,000	400
	15*	3,88,309	1,79.093	1,73,631	1,63,781	2287

It is proposed to start 30 new centres. The following funds placed at the disposal of the Board, will be distributed in the following manner among the old and new centres :

Item.	Grant	Loan
Equipment and machinery	3,00,000	3,00,000
Working capital	—	3,00,000
Advance against Government orders		2,00,000
Training	53,250	—
Production subsidy	1,50,000	—
Grants to schools	45,000	—

If reservation of certain types of paper, such as blotting paper, bond paper, drawing paper, and printing and filter paper is made in favour of the hand-made paper industry, it can double or treble its present production within a year and progressively meet all domestic demand for such varieties of paper.

VILLAGE LEATHER INDUSTRY

The Village Leather Industry has entered its 4th year and during the last three years of its working it has contributed to the national wealth production valued at Rs. 3,50,207-15-0.

The Village Leather Industry scheme of the all India Khadi and Village Industries Board centres round the dead animal and full utilisation of all to components. The objective is to turn waste into wealth and to offer better operative facilities to those who are not present, or will in future be engaged in the industry. When fully developed the industry can not only produce leather and other articles in common demand and use, but also contribute to the fertility of the soil and thus help in

* The buldings are under construction. Three centres, therefore, are not in full production Eleven have not gone into production at all.

augmenting food grains production.

The following Table will give an idea of the progress of the scheme in the months 1st April to 31st August 56 :

	Quantity	Approximate value Rs.
1. Hides and Skins recovered after flaying (Rs. 10/- per hide Rs. 2/. per skin)	5273(Hides)	52,730/-
	4938(Skins)	9,876/-
2. Bone manure (in lbs) 0-2-0 annas per lb.	1,70,167 lbs	21,271/-
3. Meat or flesh manure : annas 2 per lb.	8,744 lbs	1,093/-
4. Tallow : annas 0-6-0 per lb.	22,081 lbs	8,280/-
		93,250/-

5. Employment: 179 persons per month: Earning Rs. 1-6-0 per day per worker.

The Board has trained 285 students in the improved methods of flaying and utilisation of bye-products of soap from tallow and non-edible oils. The Board has also trained 106 students in the modern methods of Village Tanning at its different Training cum-Production Centres in the various States of India. The former course is of 4 months and the latter of one year. During the training period Rs. 40 p. m. are given as stipend to the trainees and actual third class fare both ways.

The total production value of hides and skins tanned during the months of April '56 to July 56 comes to Rs. 53,579-11-0 whereas the total production value of Hides and Skins tanned during the year 1955—56 (April, 55 to March, 56) was only Rs. 67,753—4—0

The following Table shows the working of the industry during the last 3 years :

Comparative Production Figures For Last Three Years

	1953-54		1954-55		1955-56	
	Qty.	Value Rs.	Qty.	Value Rs.	Qty.	Value Rs:
1. Hides & Skins	349	3490	1975	23700	9901	78858
	12	24				
2. Bone manure	–	–	25409 lbs	4175	113629 lbs	14204
3. Meat or flesh manure	–	–	5661 ,,	707	39904 ,,	4988
4. Tallow	–	–	2231 ,,	836	15044 ,,	5642
		3514		28419		1,03,692

From the above statement it can be said that slowly but steadily progress is being made.

Although adequate financial help is given to the institutions by way of loan and grants, they are not able to show quick progress, because of hereditary rights, social customs, poverty, and illiteracy of the class of people who are actually in the trade, come in their way.

The artisans who are in the trade are so poor that they are not in a position to contribute even Rs. 11/- towards the share capital of their society. The Board finds it difficult to extent financial assistance to individual workers.

The Board extends financial assistance only to cooperative societies or registered institutions for the different units of Leather Industry in the following manner:

Units	Grant Rs.	Loan Rs.
1. Flaying Centre	30,000	3,720
2. Bone crushing unit	1,150	2,150
3. Training in falying centre	10,000	—
4. Large Marketing Depots	22,000	25,000
5. Small Marketing Depots	40,00	15,000
6. Village Model Tanneries	7,560	9,500
7. Additional pits (per pit)	200	—
8. Repairs to pit (per pit)	50.	—

VILLAGE POTTERY INDUSTRY

Implementation of the programme for development of Village Pottery Industry under the Board was first started during the latter half of 1954-55 with the inauguration of the Central Training cum-Research Centre at Khanapur (Dist. Belgaum). During that year arrangements for the manufacture of one type of improved potters' wheel and sets of moulds for pipes and special tiles were also made. Unglazed pottery development was the main objective in the programme. Simple techniques, inexpensive and within the reach of village potters, were worked out after pooling existing skills and experience of potters in different parts of the country.

In 1955—56, three Regional Training Centres were established. While at the Central Training Centre it was decided to train educated enthusiasts for organisational work and professional potters as experts, in the Regional Training Centres professional potters were given short-term training for three months in certain selected techniques to enable them to carry on productive activities better.

Four Demonstration Squads were

formed with trained persons for short demonstrations in various regions. These Squads are stationed with different registered institutions / Co-eperative Societies / Statutory State Boards. Grants and loans for 20 common worksheds and working capital for these were also disbursed to these institutions during the end of the year. In spite of the monsoon many of the institutions have now completed construction of the worksheds and very soon they will all be full with potters' families engaged in production activities.

Trained potters from Regional Training Centres will avail of the facilities offered by such units.

Second Five Year Plan :

In the Second Five Year Plan, development Schemes include new items, and prominence is given :

1. to lacquering and simple glazing units,
2. building materials units and
3. glazed pottery units.

Glazed pottery offers an attractive programme for the public as well as for the potters. Glazed pottery activity has been going on in various States on an experimental basis for many years. Continuation of such experiments becomes unnecessary, if they are not intimately connected with the organisation of production units based on the results of such experiments. The assistance these production units require is the regular supply of basic materials-clay body, glaze and ceramic colours. These basic materials have to be of fine consistency and homogeneous composition in order to secure positive results. When once the steady supply of basic materials is assured, the shaping, finishing, baking and marketing can be easily and successfully under-taken by small co-peratives. To ensure proper quality, it is essential that experiments and testing of the basic materials are done in Ceramic Service Stations, well-equiped for crushing hard stones of flint, felspar and china clay into the required consistency, located in different regions.

In the production units, the plan is to produce jars of different sizes and shapes, bowls, plates, tea-sets and other utility glazed pottery articles. These wares have come to stay in urban and rural areas. The village potter is completely dissatisfied with his backward condition. He has begun to believe that vested interests have kept the secret of glazing beyond his reach. Lakhs of potters are unemployed or under-employed and they are desperately trying to eke out a living in the production of ordinary pots and pans. If timely steps are not taken to provide them with operative conditions to turn out wares according to changing times and tastes the skills available in the country will fast die out. Improvement of the quality and the appearance of the finished products count a great deal in the case of utilitiy articles. No Pottery Factory will be willing to offer

steady supplies of the required basic materials at reasonable rates, because having taken the trouble of preparing the basic materials, such factories will naturally be eager to undertake the further manufacturing processes for better profits. Government has to help in the steady supply of basic materials of clay body, glaze and colours. The programme requires the co-operation of States, the services of the existing Ceramic Experts and also the comstructive workers, of whom many are already expecting such products from Village Pottery Units.

There is, some quarters, an effort to concentrate production of glazed pottery of the Rockingham type, using red impure clay for body and fritted coloured glaze maturing at a slightly lower temparature. The results in this kind of a venture are invariably risky and unsteady. Such wares are much more costly, while the quality of the product is comparatively very poor. Ceramic raw materials like china clay, flint, felspar and the required oxides are available in India in plenty. So the superior white glazed pottery production has to be encouraged.

Why should we be conservative? Let us have good things in good number and let our potters feel that they are in no way inferior to potters of other countries.

FIBRE AND THE FIBRE INDUSTRY

India is known to be rich in raw materials out of which useful fibres and fibre products can be extracted. Much of these materials are not put to productive purposes and are allowed to go waste. The All India Khadi and Village Industries Board has, as part of its programmes for turning waste into wealth, taken up the development of the fibre industry on a village and cottage basis. Programmes for this industry have been formulated and the Government of India has now added this industry to those already placed under the purview of the Board. What these fibres are and how this industry is proposed to be developed, are explained in the following article :

Fibres are of three main types, viz.

1) vegetable
2) animal, and
3) artificial.

Of these the vegetable fibres are the most important and the most numerous Mr. Mathews lists over 3,000 plants and trees capable of yielding fibres. It is extremely pleasing to note that nearly all of them grow in India. There exist hardly any village in this country where

the one or other of them does not grow. Most of them grow wild and are available for the mere expense of collection.

Vegetable fibres are extracted from:

Vegetable Fibres

(1) flowers (cotton, kapok etc.)
(2) fruits (coir etc)
(3) leaves (sisal, screwpine etc.)
(4) leaf stalks (palm and other brush fibres etc.)
(5) barks (jute, hemp etc.)
(6) entire plants (grasses, canes, bamboos etc.)
(7) a few roots

But we utilise only cotton, jute, sann, ambari for impotant purposes. Coir is exploited to the extent of 50% only, according to a recent publication of the Indian Coir Board: sisal to the extent of 15 per cent, and palm fibres, even less. Screw pine, pineapple leaves stalks, date palm leaves, banana, linseed straw, certain kinds of grasses, remy (China grass) and certain varieties of the hibicous plants are not practically touched; of these at least a few can be employed in the manufacture of coarse baggings, twines, cordage, strings and ropes for domestic purposes in bigger or smaller degrees, and release the valuable cultivated crops, viz; cotton, jute, sann and ambari (which are said to be in short supply) for superior purposes. Banana fibre, linseed straw and pine apple fibres would be the bye-products of the principal industries of banana, linseed and pineapple cultivation. An income got from the sale of the raw material, however small, would be an addition to the grower's earnings if these fibres could be extracted and an industry utilising them could be developed. The work might also provide employment to them.

Weraing of fibres

Ancient books in the Sanskrit language make mention of cloth manufactured out of bast fibres. But nothing authoritative can be said or written about the weaving industry as it used to be carried on till the 19th century. We read in the Report on the Marketing of Jute and Jute Products published by the Indian Central Jute Committee that it was in the first half of the 19th century that the industry began to flourish ; and by the end of the decade of 1850-60 the sale of hand-woven Jute goods provided one of the prinicipal sources of income for the bulk of the population of Bengal. The position of the handloom industry was threatened with the advent of powerlooms and the increasing competition from the power operated jute mills of Dundee and Calcutta. Nevertheless, a moderate demand for the better types of hand woven articles did continue till the end of the century on account of the superiority of the fabrics and their greater durability.

Gunny cloth and bags, and sail cloth formed the principal products of the handloom industry. They were manufactured both for local use as also for export. These articles came to be ousted from the market gradually. Hand weaving of jute fabrics was confined

to a few towns of which the greater number have now gone over to Pakistan. They used to manufacture a coarse hessian known as hessian strips or *bardana*, locally known as *fativa* for packing cotton. They were in demand in the cotton growing areas of the Bombay State, Madhya Pradesh and certain parts of the Hyderabad State. Later, as the Second World War advanced, it became difficult to secure wagons for exporting. This difficulty together with the high price of jute, put a check on its production and movement. Partition of India separated the producers in Pakistan and the consuming centres in India. It is said that, as a result of this, the industry has completely died out in Bengal. But a few thousands took to manufacturing these products in the Bombay-Karnatak out of sisal and ambari. They are still carrying on this industry. Canvas, hand bags and *asana* are produced to some extent by a class of cultivators in the Kendarpara sub-division of Cuttack. A kind of Satranji and hessian for the packing of gur are manufactured as a cottage industry in certain parts of Andhra on a very, very modest scale.

In the rest of India, the industry is confined to the manufacture of ropes, rope yarn and strings from sisal, sann, ambari and the other hard fibres (coir excepted). In Northern India, moonj grass is the principal raw material out of which ropes, strings and chair seats etc., are manufactured as a cottage industry. Coir spinning and weaving is an industry which stands by itself. It is in a flourishing state largely because all atempts at its spinning and weaving with the help of power have thus far failed.

Along the sea coast a somewhat superior kind of yarn is spun out of sann hemp for the manufacture of fishing nets.

Dharwar Experiments

It has been stated earlier that hand spinning and weaving of jute was an important cottage industry in the jute growing area of Bengal and that it held its own till the commencement of this century. It had to yield to the products of mill industry for various reasons the most important of which seems to be that implements used by the village workers were very crude and the outturn was very poor. Marketing arrangements, too, must have been very inadequate. Experiments conducted at Dharwar show that it is possible to produce a bigger output of a better type with the help of the machines already devised by the various agencies. Satranjis, cloth for deck chairs, market bags, carpets, nivars, mattings and gudars are among those which can be manufactured at favourable cost with the help of these implements. Hessians for packing gur, khaddar, and handloom cloth too have been manufactured at a cost slightly higher than that of mill made hessian. With a slight help from the Government in the form of a subsidy, it might become possible to put them in the market at the price at which the mill-made arti-

cles are sold. This industry enjoys two advantages: the raw material becomes available in many villages at a price cheaper than that of the jute: in many cases they are grown by villagers on a self-sufficiency basis. Secondly, the villagers who are mostly agriculturists, have some time to spare during a portion of the year. A smaller wage would do for them if the industry is to be carried on in the season of no work to them. So even if the freight, brokers, commissions, municipal and other taxes could be saved' it might become possible to manufacture some of the village necesstities in such villages.

Bast Fibre Industry

Bast fibre weaving, as cottage and small scale industry, is in an advanced state in the Phillippines. We read that an improved type of fly shuttle loom, known as the Prisco Strongle, can weave varied designs and is capable of producing fabrics with fibres ranging from the finest pine to the coarsest jute. The Bayan, a semi automatic loom, operated by lever and gravity is said to be very light and fast and is capable of making 70-80 picks per minute. This is said to be the most modern among the local looms using from the finest to the coarsest yarn. In Indonesia, too, weaving of bast fibre fabrics is common. T I B looms are employed for the weaving of coarse yarn and the Godogan for weaving finer bast fibre cloth. In Burma, two types of looms are said to be in vogue.

These circumstances point out and emphasize the practicability of the introduction or the revival of the bast fibre handloom industry in India at any rate on a village self-sufficiency basis–for the manufacture of the cloth required by the villages concerned out of the raw material grown in the villages themselves provided, of course, it becomes available at a lower cost than jute and employs local labour during seasons when the agriculturist to be employed in the industry do not have work in the fields and are idle.

The industry is confined at present for the most part to the manufacture of ropes and that the Harijans are chiefly employed in it. They are illiterate. Their standards of living are extremely low. For these reasons, the industry has not been able to make headway. The work continues to be carried on with the help of crude implements which make the work laborious. The output is small and poor in quality. Several institutions have sprung up recently with the object of uplifting them. A few of them have thought of improving their industry and to get for them a higher income.

The Board's Schemes

The All India Khadi and Village industries Board has schemes for the development of the fibre industry with the following objectives :

1. Experiments for the devising of simple hand tools, costing small amounts, which, while making the work lighter

and pleasanter, enable the villagers to earn more by the work.

2, Experiments towards the utilisation of the raw materials which though available in the villages for the mere gathering, are not utilised.

3. Popularising the use of such implements among the Harijans by giving them training and by enabling them to own the implements,

4. The dispersal of the industry so that, as far as possible, villages or groups of villages become self-sufficient in the matter of their fibre products needs.

5. Establishing of model factories to enable the public to see for themselves the possibilities of this industry.

6. The training of instructors and the supply of implements.

Small implements for the spinning of yarn from sisal, ambari, sann, jute, fibres of date palm leaves and a few grasses have been devised. Decorticating machines for the extraction of fibres from sisal, a few grasses, pineapple and date palm leaves, have been devised. All these implements have been already introduced in a few villages of the present Bombay State. They seem to be popular among the villagers. Experiments are going on for the utilisation of other fibre yielding raw materials such as banana stalks, linseed straw etc.

Encouraging Results

Packing material for packing Khadi and handloom cloth, cotton, chillies, groundnuts, arecanuts and similar big sized articles can be manufactured in the cottages out of coarse yarn spun by hand process and woven in the homes as a cent per cent cottage industry. The experiments have given very encouraging results in the Dharwar and Bijapur districts of the Bombay State. Already thousands have been employed in the industry. The use of gunny bags and mill-made hessian has been dispensed with. Attempts to replace mill-spun cotton yarn in the manufacture of gudars (a kind of mattings) have nearly succeeded. A small unit for the manufacture of packing cloth for chillies is likely to be started shortly. All this work would be carried on with raw materials now wasted in the villages. With the object of giving to the people a lead, 10 model units are intended to be set up. Plans for the training of Harijans in about 60 villages, as an experimental measure in the use of improved implements, have been worked out. There is at present only one institution where training is imparted in the fibre industry. It is proposed to increase the number to 4 during 1957-58. The scheme also provides for the manufacture and sale of the implements at subsidised prices to the trainees.

RESEARCH INSTITUTE FOR VILLAGE INDUSTRIES

The establishment of the Research Institute for Village Industries under the All India Khadi and Village Industries Board, with its central location at Wardha, was sanctioned by the Government of India in September 1955 on the basis of a scheme drawn up by the Research Institute Committee. The Akhil Bharat Sarva Seva Sangh generously placed at the disposal of the Board, for the immediate purposes of the Research Institute, the Maganwadi estate at Wardha with its lands, buildings and village industries production centres, on a token lease rent of Rupee One per month and in addition offered a free gift of a large piece of land on the Sevagram Road for locating permanent premises. The Maganwadi estate was taken over and the Research Institute started functioning with a small nucleus of staff from 1st November 1955.

Research Committee

In order to guide the work of the Research Institute and advise on research programmes in general, the Board constituted in August 1955, a new Research Committee consisting of the following members :

1. Shri Satish Chandra Das Gupta (Chairman)
2. Shri Jhaverbhai Patel
3. Shri Bharatanand
4. Shri S. M. Patel
5. Shri C. J. Soneji
6. Dr. S. D. Mahant
7. Shri D. Padmanabhan
8. Shri B. M. Das.*
9. Dr. J. N. Mukherjee. and
10. Dr. M. Sadashsiva Rao (Secretary)

Lines Of Work

According to the scheme, the work of the Reasearch Institute was to be carried out along five co-ordinated lines for the purpose of building up a Research Centre more or less of a structure similar to other research institutions in the country, but having to organise special research facilities to establish itself in the relatively new field of village industries in which there are no similar precedents. The lines of work are :-

1. Research and investigation into the technological problems of production in village industries on the Board's programme with the assistance of laboratories for control and with the help of experimetal engineering workshops for development of improved tools for decentralised production.

2. Experimentation with the improved tools and practices through full-scale production operation in experimental village industries centres.

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* Shri B. M. Das served on the Committee till his untimely and sad demise on September 4. The All India Khadi and Village Industries Board is grateful to Shri Das for the valuable services he rendered to the cause it promotes and has placed on record its high appreciation of the guidance he gave to it in matters relating to research.

3, Dissemination of information on the results of investigation and on the newer improved tools and industrial practices to village industries production centres and organisations in the field.

4. Training of research personnel:

5. Utilisation of suitable and special research facilities existing elsewhere, for investigations of village industries problems, through sponsored research.

The implementation of the Research programme at Maganwadi consisted essentially in building up along these lines, gradually and steadily, a co-ordinated and smooth-working research organisation starting from a small nucleus of staff and the existing village industries production centres taken over from the Sarva Seva Sangh. It involved the creation and equipping of new laboratories and workshops in buildings to be specially erected for that purpose, organising the information services with its necessary technical reference library, selection and appointment of the required administrative and qualified research staff and the organisation of planned investigations. The progress in the building up of the different sections of the Research Institute from 1st November 1955 is reviewed briefly below together with an account of the research programme.

Research and Administrative Staff

The Scheme, as approved by the Government, contained the sanction for the following research and administrative staff: A Deputy Director to be in charge of over-all administration and research, three posts of Departmental Heads of the status of Assistant Directors, three senior and three Junior Scientific Officers, a senior and a junior Mechanical Engineer and several other junior technical posts for the laboratories and workshops. Most of the staff has been appointed as the facilities for work have expanded. The staff of the experimental village industries production units consist of supervisors, assistants, skilled artisans and daily wage workers, taken over on the date of transfer. The routine administrative staff sanctioned consist of an Office Secretary, an accountant, a storekeeper, and clerks and typists.

Library And Information Services

A scientific and technological reference library equipped with more than 1200 titles of books and monographs and subscribing for about 50 current scientific and technical periodicals has been established at Maganwadi as an integral part of the Research Institute. A few series of bound volumes of back numbers of important periodicals are also available for reference.

The library provides easy access for the research staff to available scientific and technical (including engineering) literature to assist in their work. It is in charge of a Senior Librarian and is organised on the basis of an open-access system and is provided with bibliographic services in the form of catalo-

gues, card indices, cross indices and other scientific documentation systems to increase its usefulness. The library is associated with the information services whose essential function in the Research Institute is to disseminate the results of investigation and technical information. A large number of enquiries for technical information were received in the period under review regarding difficulties and problems met within village industries and were answered on the basis of current technical knowledge which was otherwise not easily available to the enquirers. The problem of comunicating new information in the field of village industries, however, is more difficult than normally since it has to provide information at two different levels. Information on the results of detailed investigations, using new techniques of research with which an average individual is not usually familiar but which constitute a permanent record of research essential for developing village industries on a firm foundation, has necessarily to be on a strictly objective and technical level. This record of research has to reach other centres of research and research workers in the field and is being issued in the form of "Research Papers". However, the usefulness of 'Research Papers' for the organisers and others engaged in the industries is ensured by providing an abstract containing the gist of the information contained in each in addition to a detailed technical section for those who require to go critically into the results to continue the research further. The usefulness of the results of investigations of the Research Institute, however, has to be ultimately judged by their adoption and utilisation in the field to improve industrial production. For this purpose "Research Bulletins" (in English and Hindi) are issued conveying through simple descriptive language the results obtained on improved tools and practices, with adequate sketches or blueprints to assist the producer to incorporate the tools and methods in his practice. The post of a Seientific Editor has been created for the Information Services. Miniature models of some of the appliances are also issued at present. When the workshops are fully established prototype models of appliances, for the purpose of duplication and manufacture, are proposed to be issued at cost.

Experimental Production Units

The experimental production units of of the Research Institute are full-scale village industries production centres for a study of the problems of production and for experimenting with tools and practices developed through investigation. The centres working at present are :

1. Handmade Paper
2. Oil Ghani
3. Pottery
4. Soap from Non-edible Oils, and
5. Handpounding, Paddy husking and flour grinding. (Chakki Unit)

It is proposed to add other experimental village industries production

units in course of time. Production in experimental production units is subsidiary to investigation and is carried out under full laboratory control, economics of tools and effect on employment and productivity. Each unit is independent for purposes of costing and to facilitate drawing conclusions with varying set-up of tools and methods. The products of handmade paper, soap and pottery units are sold, while the ghani and the chakki units are partly service units. A revenue of Rs. 17,863--7-6 realised by way of sales and service from 1st November to 31st July 1956 will give an idea of the value of production at the experimental production units. The units give employment to seven supervisors, twelve assistants, eight skilled artisans, and to forty-five workers paid a daily or a piece rate wage.

Laboratories

The new laboratory building has a floor area of about 5000 sq. ft. and when completed by December 1956 will provide the following scientific and testing units:-

1. Chemical assay and analytical work
2. Biochemical & Microbiological work
3. Oil and Soap testing
4. Gur, Sugar and Honey testing
5. Paper and Pulp testing
6. Textile testing
7. Leather testing
8. Research Units
9. Statistical Laboratory
10 Services such as gas, power, water, sterilising, washing etc.

Most of the scientific and testing equipment for the laboratories was received in 1955-56 and the balance is to be obtained in 1956-57. The laboratories are functioning at present in temporary premises pending the completion of the new premises.

Workshops

The experimental engineering workshops scheduled to function fully by the end of 1956-57 and to be installed in buildings under construction of about 5000 sq. ft. in area consist of the following :

1. Machine shop
2. Sheet metal shop
3. Welding shop
4. Smithy
5. Foundry
6. Carpentry shop
7. Fitting and Assembly
8. Drawing and Designing office

The workshop equipment has been carefully chosen so as to use hand-operated machines, wherever possible, so that the experience gained may be utilised in the field of manufacture of tools and implements on a decentralised basis. It is equipped only for experimental purposes and for general work and not for mass production and supply of tools. Pending its complete installation a carpentry and a smithy units are operating to assist in research

work. A few Wardha ghanis, decorticators, chakkis, hand-pounding implements etc. are being manufactured and sold. A drawing and designing office for village industries tools has been set up.

Nature and Programme of Research

The progress made in the establishment of the Research Institute at Maganwadi has been briefly reviewed. A matter of equal importance is the nature of work of the Research Institute in a proper perspective in relation to the wider programme of the development of village industries under the Board. Before reviewing the investigations on hand and the results obtained so far it is worth while to present a clear conception of the nature of the research and investigational work of the Research Institute and define its exact scope and function briefly.

The most important feature of the Research Institute, in accordance to which its research facilities are organised, is that the types of research and investigations projected have no exact parallel in the nature of work of other industrial research laboratories in the country such as the National Laboratories. The technological problems presented by village industries and the objectives in seeking solutions through research are not concerned in advancing the frontiers of science or technology. They are problems of decentralised production to be solved with the basic objectives of increasing employment as well as the productivity per person employed in the light of available scientific and technical knowledge. For the solution of these problems a great deal of attention has of necessity to be directed to the improvement of each individual operation, tool and process of village industries, with the help of the tools of science and engineering, in order to attain the basic objectives. But the final criteria, by which the adequacy of a given industrial operation, tool and process can be evaluated for decentratised production and by which a decision is possible regarding adoption in the field, cannot be based on technological considerations alone but only through a comparison of the values, effectiveness and costs (social and economic) of a set of proposed alternative courses of action involving a a number of factors of which employment and technology are the most importent. The number of factors bearing on decentralised production are by no means uniform for all village industries but vary widely in point of time, place, scale of productions and the nature of the industry. Investigations through trial and error, therefore, must be replaced by investigation through planning. Adherence to techniques of marginal improvement must give way to an organised search for major shifts, strategies and tactics in the means of achieving the objectives of a decentralised industrial economy. New research techniques, which are normally not the stock in trade of industrial research for

centralised economy, are called for. The investigations must cover the decentralised operations of a given industry as a whole and not only its industrial elements of action. An estimate of the uncertainty in the predicted outcome and the values, effectiveness and costs, in terms of employment and productivity, of the proposed improvements in the industry must be included. The investigations must extend from the laboratories and workshops to the designing of experimental operations that give an insight into the behaviour of actual decentralised industrial production in the field. Finally, it is important to emphasise that planned investigations into the problems of decentralised production in village industries should yield quantitative and objective solutions, which may indicate one or more of a set of alternative solutions. The acceptance of any one of these alternative solutions for implementation is not part of the function of investigation but of the policy makers. The following investigations have been conducted at the Research Institute since its inception on 1st November 1955;

1. VILLAGE OIL INDUSTRY

(i) The Oil ghani

The oil ghani is the single oil pressing tool on which the village oil industry has to rely. As yet, work carried out hitherto on the improvement of the ghanis at Wardha, Poona and elsewhere is based on the assumption that its efficiency is entirely derived from the amount of pressure exerted on the seeds to expel the oil, in a manner more or less analogous to the oil-press or the oil-expeller of the centralised oil industry, and is limited by the power exerted by the bullock. The present investigations on the improved Wardha ghani are aimed at answering the following questions arising in a logical order;

1. What is the actual performance of the Wardha ghani during normal production ?
2. What is the exact mechanism of oil expression in the ghani? and
3. What are the physical and chemical properties of the ghani oil on which standards of purity can be framed?

The economy of production is based on the performance of the ghani during normal (as distinguished from controlled) production, since normal production is subject to random, or uncontrolled, factors. A statistical analysis of a large amount of data collected during normal production at Maganwadi has been carried out. The findings are presented for sesamum (or til) oil in a Research Paper. The statistical analysis of this data shows that (1) normal production is subject to wide variation due to interaction of unknown factors involved in the principle of crushing of oil seed in the ghani apart from normal experimental error, and (2) the ghani is much more efficient than its simple construction may indicate. It becomes necessary to locate the

factors involved in variation through an elucidation of the mechanism of oil expression by the ghani so that the ghani may be rationally improved, with the application of engineering, to yield consistently higher outputs of oil. Controlled experiments to elucidate the mechanism of oil expression on the improved Wardha ghani showed that the role of pressure is subordinate contrary to the general assumption. The mechanism of oil expulsion is essentially the displacement of oil by the water added during operation. The process is known to science since 1936, due to the investigations of Russians and is called the "Skipin" process. It involves an expression of oil without the necessity of cooking that is required in modern oil technology. The oil, therefore, must have essentially different properties. An investigation of this question is on hand by which standards of purity and quality can be framed for the ghani oil.

(ii) Cotton seed oil

Cotton seed oil, though reserved for oil expellers, is a potential source for soap making. Preliminary experiments to extract oil from the cotton seed by the improved Wardha ghani have been successful. The seed can be decorticated, on a special decorticator designed on the sew tooth princinciple, and the kernels pressed in the oil ghani to yield about 27% of a dark coloured oil containing a large amount of gossypol. Further investigations are in progress.

2. HAND-MADE PAPER INDUSTRY

(i) Operational Study of Hand-made Paper Production:

The main problem of the handmade paper industry is essentially one of economy of production in relation to competion from the mill-made paper. The technology is well developed except for details of tools, processes, etc. High grade handmade paper, containing 100% rags, sells at well below the price of equivalent imported paper, while lowgrade handmade utility paper (incorporating 100% waste paper) sells at a price much higher than the price of equivalent mill-made paper. Both the types of paper have demand for their respective purposes, Rags, jute and waste paper can be blended to produce various intermediate grades of paper. The problem is of determining the optimum quantities of each to be produced for a given set up of tools and persons employed so that each production uni of the handmade paper industry can hold its own against competition. The problem needs for solution a difficult new technique called "linear programming." With the experimental production unit at the Research Unit, and whith all the relevant data on costs and employment, investigations are on hand for deriving a simple procedure af linear programming by which the problem can be solved for handmade paper production in the field.

(ii) A new Paper Lifting Vat

The most difficult operation in the

handmade paper industry is the hand lifting of papers from the vat. The skill required is not easily acquired; the costs arising from unskilled paper lifting are high; the lack of uniformity in the weights of a given grade of paper is a strong deterrent in consumer acceptance. A simple and an inexpensive vat called K. B. R. Vat No 1 has been devised on the pour-mould principle for obtaining uniform weight (and thickness) of paper. Extended experiments in normal productions has shown the entire reliability of this new vat for general use. A Reserch Bulletin is being issued describing its construction and giving all relevant information.

(iii) Highgrade Paper for Permanent Records

Highgrade handmade paper made entirely of rags is required for permanent records such as historical records. Two standards are laid tdown for such papers: 1st grade for permanent records with a minimum life of 500 years and 2nd grade for records with a minimun life of 100 years. The experimental production of these papers is on hand to determine the exact conditions of manufacture so that the results can be utilised widely in the handmade paper industry.

(iv) Paper Board for Cottage Match Boxes

Paper boards, utilising different raw materials and at costs lower than similar mill board have been made and tested at the Match Laboratory of the Board at Sodepur, near Culcutta.

(v) Hand Pulper

A hand pulper for waste paper has been devised for pulping waste paper and is under tests.

3. NON-EDIBLE OIL SOAP INDUSTRY

(1) Source of Caustic Soda

The village soap industry (as well as the handmade paper industry) is handicapped by the scarcity of caustic soda which is largely imported. The standard method of causticising lime with soda ash, both of which are more easily available than solid caustic soda, has been adapted for these industries. The tools and methods will be described in a Research Bulletin which is being issued.

(ii) Depulper for Neem Seed

The seasonal collection of neem fruit for expressing of neem oil, involves collection and storage of the fruit. During storage the excessive rise in temperature due to respiration causes deterioration of the quality and quantity of oil that can be extracted from the kernels. The dry pulp renders decortication difficult. A hand depulper of low cost has been devised by which, after a preliminary soaking, the seed can be separated from the pulp and the seed easily stored and decorticated without the risk of deterioration.

(iii) The Optimum Non-Edible Oil Soap Unit

The data obtained trom the large number of Non-edible oil soap produc-

tion centres from the Board are being analysed for optimisation of the factors of production at the requisition of the Organiser. This requires the ecnometric method of deriving a "Production Function" from statistical data. The method enables the location of the factors which have to be maximised (or minimised) so that the soap units can function under optimum conditions for both employment and production.

A number of other minor and major investigations are on hand or projected in the hand-pounding and pottery industries. These are being gradually extended to other village industries at the Resecrch Institute and in the field. As part of sponsored research, investigations are being carried out at the Agricultural Laboratory at Mahabaleshwar on the breeding of better strains of the honey bee and on the improvement of bee-keeping equipment and routine management practices.

REVIEW OF TRAINING ACTIVITIES

In view of the Planning Commission's emphasis on the need for expanding the training facilities in Khadi and Village Industries, the All India Khadi and Village Industries Board, at its first meeting, appointed a Training Survey Committee.

The Board considered the report of the Committee and constituted a Standing Training Committee to advise the Board in implementing the recommendations of the Survey Committee. The Training activities of the Board started with the opening of the Khadi Gramodyog Vidyalaya, Tryambak Vidya Mandir, Nasik, in February, 1954. Three regional Vidyalayas were started subsequently at Machala (Madhya Bharat), Rajkot (Saurashtra) and Shivdaspura (Rajasthan) by June, 1955.

During the period under review, three more regional vidyalayas were started at Madhubani (Bihar). Sevapuri (U.P.) and Samalkha (Punjab).

Additional facilities have now been added for the training of Extension Officers (Industries) of the Community Projects Administration. This training was started at Khadi Gramodyog Mahavidyalaya (Nasik) and Gujarat Vidyapith (Ahmedabad) in December. 1955, at Gandhi Niketan Ashram, (Kallupatti) in January, 1956 and at Govindram Sekseria Commerce College, Wardha (Madhya Pradesh) in August, 1956.

The Board has decided to start seven more Khadi Gramodyog Vidyalayas at Abhoy Ashram. Balrampur (West Bengal) Ramtirth, Jamkhandi (Karnatak), Vallabh Vidyalaya, Bochasan, (Gujarat), Kasturba Seva Mandir, Rajpura (Pepsu), Dhanaura (U. P. for the workers of the Intensive

Area Scheme), and one each for Hyderabad and Maharashtra.

For the training of Extension Officers of the C.P.A., three more Khadi Gramodyog Mahavidyalayas are to be opened at Nilokheri (Punjab), Sadakat Ashram (Patna), and Himayatsagar (Hyderabad). Arrangements have been completed.

Three Khadi Gramodyog Mahavidyalayas for training Organisers and Instructors for Khadi and Gramodyog will be started at Krishnarajpuram (Bangalore), Kora Gramodyog Kendra, Borivili (Bombay), and Chattrapur (Vindhya Pradesh).

The Training Committee has prepared the syllabuses for the following courses:

Course	Duration
1. Katai Karyakarta	- 12 months
2. Bunai Karyakarta	- 15 months
3. Katai Visharad	- 12 months
4. Bunai Visharad	- 15 months
5. For the Officers of the C. P. A.	- 12 months*

The syllabus for the course of Khadi Gramodyog Adhyapan Visharad is under preparation.

The Training Committee has also prepared an 'Examination Scheme' for the use of the Khadi Gramodyog Vidyalayas.

* At the instance of the Action Committee of the C. P. A., The Training Committee of the All India Khadi and Village Industries Board has agreed to reduce duration of this course from 12 months to 10 months.

The students in the Regional Vidyalayas are being paid a stipend of Rs, 30 per month and those in the Mahavidyalayas, Rs. 40 per month.

The C. P. A. trainees would be paid a stipend of Rs. 75 per month, according to the decision of the Action Committee.

The institutions which have been entrusted with the management of the Vidyalayas are being paid grants on the following items ;

1. Staff.
2. Contingencies,
3. Recurring and non-recurring expenses, and
4. Building.

Intensive Training in Village Industries is arranged by the Organisers of the respective Village Industries.

In addition to these training facilities, separate arrangements exist for Training in Ambar Charkha. Thirty Ambar Vidyalayas are now training Ambar Instructors and Technicians, and 172 out of 300 Parishramalayas are now training Ambar Spinners.

The following is a brief report of the training activities of the Board for 1953-54 to August, 1956.

1954-55

The Board started its training activities with the opening of the Khadi-Gramodyog Vidyalaya at Trayambak Vidya Mandir, Dist. Nasik in June, 1956. The Vidyalaya is directly run by the

Board. Later on, in order to meet the demand of trained personnel in different parts of the country, it was decided that the Board should give grants-in-aid to recognised institutions which undertook to train personnel on behalf of the Board. Accordingly, during the year 1954-55, three Regional Vidyalayas were started at Shivdaspura (Rajasthan), Machala (Madhya Bharat) and Rajkot (Saurashtra). In all training was imparted to about 150 trainees at a total cost of Rs. 70,000/-.

1955-56

In addition to the four Vidyalayas, started during the year 1954-55, four more Regional Vidyalayas started functioning during the year 1955-56 at the following places :

S.No.	Name of the Vidyalaya	Date of Starting
1.	Samalkha	1-1-1956.
2.	Shri Gandhi Ashram, Sevapuri	1-5-1955.
3.	Gandhi Niketan Ashram, Kallupatti	2-1-1956.
4.	Madhubani,	5-1-1956.

Details regarding the amounts spent on the various Viayalayas, number of trainees trained during the year 1955-56, as well as the number of trainees under training at the end of the year are shown in the following Table :

Name of the Vidyalaya.	No. of persons trained	No. under training	Grants paid
1. Shivadaspura	69	19	25,885/-
2. Machala	53	-	14,583/-
3. Sevapuri	40	-	33,775/-
4. Rajkot	23	-	24,500/-
5, Madhubani	-	40	14,263/-
6. Kallupatti	-	40	11,712/-
7. Samalkha	40	-	11,924/-
8. Nasik	69	-	93,703/-

The first seven Vidyalayas were paid the building grants at Rs. 60,000/- each. The following five Vidyalayas have also been paid grant at Rs. 60,000 each for constructing buildings for the Vidyalayas at the following places;

1. Balarampur,
2. Bochasan,
3, Maharashtra,
4. Hyderabad and
5. Patna.

In addition to the activity of imparting training to Khadi workers and organisers, the Board also decided to undertake the training of Extension Officers of the Community Projects Administration

with a view to introducing the trainees to the new techniques of the Village Industries and their significance to the rural economic life of the country. The details regarding C.P.A. training activities of the Board are as under :

Name of the Vidyalaya	Date of starting	No. of trainess allotted	No. of trainees joined
1. Khadi Gramodyog Mahavidyalaya, Nasik.	5-12-1955	100	83
2. Khadi Gramodyog Mahavidyalaya, Gujarat Vidyapith, Ahmedabad-14.	10-12-1955	30	19
3. Khadi Gramodyoy Mahavidyalaya, Gandhi Niketan Ashram, Kallupatti.	20- 1-1955	53	42

The training course for the above officers is of one year's duration.

1956-57 (up to August)

In the beginning of the financial year 1956-57, one Mahavidyalaya at Nasik, 7 Regional Vidyalayas at Shivdaspura, Machala, Rajkot, Kallupatti, Sevapuri, Madhubani and Samalkha and 3 C.P.A. Vidyalayas at Nasik, Ahmedabad and Kallupatti conducting differnent types of courses, were functioning. One more C. P. A. Vidyalaya started functioning at Govindram Sakseria Commerce College, Wardha, from 15-8-56.

In the month of June, 1956, the first Seminar of the Principals of all the Vidyalayas was held at the Board's Central Training Institution, Nasik. Uniform syllabuses for different types of courses were considered and subsequently finalised at the Seminar.

In additon to one Mahavidyalaya, 12 Regional Vidyalayas, 3 C. P. A. Vidyalayas, the Government of India have sanctioned 6 more Regional Vidyalayas' 5 C. P. A. Vidyalayas and 3 Mahavidyalayas for the year 1956-57. Necessary steps are being taken to start these Vidyalayas in different parts of the country.

The training activities in regard to the Ambar Charkha Scheme of the Board, are reported elsewhere.

CERTIFICATION COMMITTEE

Rules for Certification of Saranjam and Village Industries

(Adopted by the Certification Committee at its Kanchipuram meeting held on 27th and 28th of May, 1956.)

1. Definitions is these rules :-

A. 'Committee' means Certification Committee constituted by All

India Khadi and Village Industries Board.

B. 'Institution' means the Institution certitified or desirous to be certified, as per context in these rules.

C, 'Saranjam' means instruments of Khadi and Village Industries production and 'Village Industries' means articles produced by the certified institutions and approved by the A. I. Khadi & V. I. Board.

2. Certificate will be issued for Saranjam and V. I. Production and Sale as well as for production or sale separately.

3. Certificate will be issued mainly to charitable public institutions, Cooperative Societies, Government Departments, Government Centres and in special cases to individuals also.

In Cooperative Societies certificate for production will be issued mainly to Artisans' Cooperative Societies and cerificate for Sale to Consumers' Cooperative Societies also.

It is expected that individuals should get themselves organised either in Cooperative Societies or Charitable Institutions within a year, otherwise their certificate may be cancelled.

4. Certificate will be issued to institutions for following Village Industries:

1. Handpounded Rice.
2. Palm Gur.
3. Gur & Khandsari.
4. Oil pressing with animal power.
5. Soap manufacture with non-edible oils.
6. Non-violent Honey.
7. Handmade Paper and its stationery.
8. Leather tanning and manufacturing of leather goods.
9. Village Pottery and curios.
10. Handmade matches.

Certificate will also be issued for such other Village Industries which will be approved by All India Khadi and Village Industries Board from time to time. Certificate will not be issued to institutions dealing in industries opposed to or against the above mentioned village industries. Exception can be made in case of Saranjams.

5. It is expected from an institution that its office bearers, members of Executive Committee and all the workers directly engaged in production or sale of Saranjam and Village Industries should be habitual Khadi wearers. After a specified period they must become Khadi wearers.

6. As far as possible raw materials used in Saranjam and Village Industries should not be foreign or mill made. If any such material is to be used, previous approval of the Committee will be necessary.

7. Mechanical power like electricity etc. may be used in manufacturing Saranjam and in certain processes of handmade paper. But in case of other Village Industries, man power, animal

power and natural power should be used.

8. It is essential that the institution should not pay wages to workers and artisans less than the wages prevailing in the area. It is expected that an artisan should get generally one rupee a day as wages.

9. It is the duty of an institution that artisans should be made capable to acquire that much efficiency which is the basis of wage-schedule laid down by the Committee. For this purpose the institution should make all the arrangements to impart necessary training to artisans and to make improvements in their implements, equip them with better implements and supply better raw materials.

10. It is essential that the institution should manufacture and produce Saranjam and Village Industries products as per specifications laid down by the All India Khadi & Village Industries Board from time to time. The Saranjam and Village Industries products should be tested practically and if found satisfactory, only then the same should be supplied outside; in case the defective or unworkable Sarajams are supplied, the supplying institutien shall have to take the same back and bear the expenses incurred therein. If any dispute arises in this regard, the decision of the Committee will be final and binding upon the institution.

11. It is the duty of the institution that it will take all precautions to ensure the purity of Village Industries, follow all the rules and regulations laid down by the Committee that are in force at present or may be framed from time to time. In case any proof of impurity in Village Industries is found or that the rules and regulations laid down by the Committee are not properly adhered to by the institution, the Certificate is liable to be cancelled before its expiry.

The findings and decisions of the Committee in this behalf will be final and binding upon the institution.

12. The institution will have to carry out its activities within the area allotted to it by the Committee. Its work shall not in any way hinder or affect the work of other institutions. It should not carry on its activities outside its jurisdiction without the permission of the Committee.

13. The institution will have to carry on its Saranjam and Village Industries work according to the principles and policies laid down by the Committee and in accordance with directions issued from time to time.

14. The Certificate will be issued for one year and the year will be calculated from 1st April to 31st March. The Certificate issued during any month in the year will expire on 31st March. Application for renewal of Certificate should be made one month before the expiry of the period.

15. The institution can raise loan if necessary, as far as possible interest free or at the lowest rate. In any case, interest should not

exceed six per cent per annum.

16. Maximum efforts should be made by the institution to sell its production as much as possible locally. Local sales should be increased progressively. Sales Bhandars should give preference to local production.

17. The Institution can appoint Agents to sell Saranjam and Village Industries products according to Agency rules laid down by the Committee.

18. The institution will maintain its accounts, registers, etc. according to the instructions of the Committee and make them available for inspection by inspectors sent on behalf of the Committee. The institution shall also help them to carry out their inspection work. The institution has to send such reports and statements as may be called for from time to time.

19. The institution will not supply goods to certified parties for resale and will always purchase Saranjam and Village Industries products from certified parties only. The principle in this matter should be that the goods should be purchased directly from artisans or certified institutions and not from or through middlemen.

20. The institution will have to self its products at scheduled rates fixed by the Committee from time to time and get its costings and sale rate charts approved.

21 (a). The institution is permitted to keep a margin to a maximum of 12½% or annas two per rupee on production cost, which would be 11.11% of its sale prices, to cover the establishment expenses.

The prescribed margin of 12½% on the cost price of production will comprise of all kinds of production expenses, transport charges of raw materials, interest, salary etc.

(b) The institution is permitted to keep a margin of annas two per rupee i. e. 12½% on its purchase price which would be 11.11% on sale price as maximum margin for sale of Saranjam and Village Industries to cover establishment expenses including transport charges, damage, octroi, etc.

(c) Total margin for production and sale should not exceed 25% i. e. annas four per rupee on cost price. That means production centres will add annas two per rupee on cost price and supply the goods to sale Bhandars who will add annas two on their purchase price and sell the same.

22. (a) If the institution makes any extra profit over and above the margin allowed for establishment expenses, such amount should be ear-marked by the institution for the Artisans' Welfare Fund. This fund may remain with the Institution unused for two years, but should be utilised for the purpose it is meant for, after this period.

(b) Any unforeseen loss or reduction in price may be met from this fund with the permission of the Committee.

(c) Any saving effected by the institution within the establishment expenses allowed will be owned by the institution.

23. The Certificate should be returned to the Committee as soon as the period expires or if the Certificate is cancelled by notification.

24. Annual certification fee will be charged at one rupee per thousand on production (at sale price) or retail sales which ever is more. But minimum fee charged would be Rs. 10/- for Saranjam and Rs. 5/- for Village Industries respectively, and maximum fee charged would be Rs. 250/- for institutions and one rupee per thousand rupes for individuals. The initial fee will be charged at Rs. 10/- for Saranjam and Rs. 5/- for Village Industries.

The initial fee will be payable as soon as the application is approved.

The renewal fee will be calculated on production or retail sales of 12 months from January to December and the same should be remitted along with the application for renewal of Certificate. But the Certificate will be renewed from 1st April.

The institution carrying on two or more activities out of Khadi, Village Industries and Saranjam, has to pay initial and minimum fee of Rs. 10/-and maximum fee of Rs. 250/- The fee will be calculated on the combined production and sale of the activities.

Note: In the above rules wherever the word "Committee" is used it means Certification Committee or the Chairman of the Committee or its office as per context.

Notice to Readers

1. Though published by the All India Khadi and Village Industries Board, the views expressed in "Khadi Gramodyog" are not necessarily the views of the Board. The object of this Journal is to focus popular attention on the importance of Khadi and other village industries in schemes of national development, to discuss the problems of these industries and to record the progress made in the implementation of development programmes.

2. Contributions and letters intended for publication in this Journal must be brief, must deal exclusively with any one particular aspect of the programmes for development at a time and must bear the name and address of the writer. They must be typed on one side of the paper and must be accompanied by a self-addressed stamped envelope if their return is desired. All communications must be addressed to the Editor, "Khadi-Gramodyog", Post Box No. 482, Bombay, and not to any person by name.

3. Matter intended for publication must reach the Editor not later than the 15th of every month. The Editor reserves to himself the right to reject any contribution without assigning any reasons.

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All subscriptions are payable in advance.

Regd. No. B. 703

PRICE OF KAHDI

Khadi seems to cost more than mill-made cloth; but one must think more realistically in terms of social costs. In India cloth mills have led to an increase in unemployment; those who are out of work have to be fed at least at a subsistence level. If the cost of maintaining them were to be borne by the mills, would mill-made cloth be cheaper than Khadi ? Mills alone have aggravated unemployment. No one has been thrown out of wotk because of Khadi; it provides for people and so it is dearer. There is something spurious and deceptive about the comparative cheapness of millmade cloth.

People go on talking about high prices and low prices as if they were more important than consideration for the country as a whole and concern for the poor people in it. Low prices are not a panacea. If attempts are made to cheapen food-grains or cloth in villages, the low prices will, at a certain stage, prove disastrous to the cultivator or the weaver, by reducing his income below starvation level. In this preoccupation with price levels, lives of multitudes are also treated like commodities. Would you like to think of your son becoming cheaper-expendable-because of this play of supply and demand ?

—VINOBA

Edited and Published by C. K. Narayanswami, Director of Publicity, All India Khadi and Village Industries Board, Mistry Bhavan, Dinsha Wacha Road, Bombay 1, and Printed by him at "Trend Printers", Swadeshi Mills Estate, Girgaum, Bombay 4.